

BRIEF DESCRIPTION OF TESTING PROGRAM

The work of the Testing Department is divided into four groups: (1) Pre-employment testing. (2) testing of "Specials", (3) departmental testing and (4) Research.

(1) Pre-employment testing is concerned with the testing of all individuals who pass their physical examination. Two batteries of tests are used (1) the clerical battery and (2) the factory battery.

All applicants who are to be considered for clerical positions are given the clerical battery. This battery consists of the Bernreuter Personality Inventory; the Otis Self-Administering Test of Mental Ability and the StenoGauge Typing Test. On the StenoGauge test he will receive a score on (a) accuracy in spelling, (b) typing and transcription accuracy, (c) typist rank and (d) total typing score. If the applicant is applying for a stenographic position he is also given a dictation score. The Otis Self-Administering Test of Mental Ability measures mental capacity. The Bernreuter Personality Inventory measures six traits (1) neurotic tendency, (2) sufficiency, (3) introversion-extroversion, (4) dominance, (5) confidence and (6) sociability. The scores on all three of these tests are then recorded and the profile drawn on the Clerical Test Form GLM-N 2074-1. (See Exhibit A)

All other applicants are given the factory battery. This battery consists of four tests; (1) the Bennett Test of Mechanical Comprehension, (2) the Mac Quarrie Test of Mechanical Ability, (3) the Otis Self-Administering Test of Mental Ability and (4) the Bernreuter Personality Inventory. The Bennett Test is a general test for mechanical comprehension. The MacQuarries test is a more detailed test which measures three phases of finger dexterity and four phases of visual ability. The Otis and Bernreuter tests are the same as for the clerical battery. All of the scores for the factory battery are recorded and the profile is drawn on the Factory Test Profile Form GLMN-N 2074. (See Exhibit B)

As soon as all tests have been scored the scores are recorded on a 3x5 mimeographed card. (See Exhibit C) This mimeographed card is retained in the permanent file of the department.

The test profile is then attached to the applicant's credentials, application, etc., so that when he is called to the final interviewer's office his case may be thoroughly analyzed and he be given a final job placement at the proper wage level.

Test Instructions

You will spend the next two and one half hours in this Testing Room taking a battery of four tests. The Board of Evaluation and Promotion has requested that you be tested and the test results will be sent to them. It is to your advantage to do just as well as you can on these tests.

Bennett- Mechanical Comprehension

You have been given a test booklet and a separate sheet for your answers. Do not open your test booklet until all of the instructions are given, and disregard the instructions printed on it.

Locate on your answer sheet where it is marked Sample X and Sample Y. You will notice that for each sample, the answer choices A, B, and Equal are given. Now look at the test booklet and locate Sample X and Sample Y. Sample X shows a picture of two rooms and asks, "Which room has more of an echo?" Room A has more of an echo because it has no rug or curtains. Go back to your answer sheet again and draw a cross through A, under Sample X. Now look at Sample Y and answer it yourself. The answer is B.

On the following pages there are more pictures and questions. Read the question carefully, look at the picture, and mark your answer on the answer sheet.

When you have finished one page, go right on to the next page. There is no time limit on this test, but you should be finished in about twenty minutes.

Bernreuter

This is a test of your interests and your attitudes. It is not an intelligence test. There are no right or wrong answers. We ask you to answer every question honestly and for yourself in order that we may have accurate results.

For each question you have an answer choice of "Yes", "No", or "?". We ask you to answer with a "Yes" or a "No" if you possibly can, but if you cannot answer with a "Yes" or a "No" then you will have to use the "?".

Fill in the space between the two dotted lines underneath the answer choice. Mark your answer very heavy and very black for this test is corrected by machine, and it is the carbon from the pencil that measures the results.

As I read the questions to you, fill in the answers on your answer sheet.

Otis- Mental Ability

This is a test to see how well you can think. It contains questions of different kinds. Here are three sample questions. Five answers are given under each question. Read each question and decide which of the five answers below it is the right answer.

Sample A: Which one of the five things below is soft? Glass, Stone, Cotton, Iron, or Ice? The right answer, of course, is cotton and cotton is number three, so a heavy mark has been placed under the three in the sample corner of your answer sheet where you are to answer your sample questions.

Sample B: A robin is a kind of: Plant, Bird, Worm, Fish, or Flower. Fill in the correct answer in the sample corner of your answer sheet. The answer is Bird, and Bird is number seven, so you should have placed a heavy mark in the space under the seven.

Sample C: Which one of the five numbers below is larger than fifty-five? 53, 48, 29, 57, or 16? The answer, of course, is fifty-seven and that is number fourteen, so you should have placed a heavy mark in the space under the fourteen.

The test contains eighty questions. You are not expected to be able to answer all of them, but do the best you can. You will be allowed half an hour after I tell you to begin. Try to get as many right as possible. Be careful not to go so fast that you make mistakes. Do not spend too much time on any one question. No questions about the test will be answered after the test begins.

Your test booklet is divided into three parts. On one side you have pages three and four and on the other side, pages five and six. To begin with fold back the front page, fold five over it, so that you ~~will~~ have pages three and four on the outside. Place the test booklet on the answer sheet so that page three of the test booklet and column three of the answer sheet are corresponding. Line up the arrows very carefully so that they meet, so that question one will correspond with answer blank for question one. When you have completely finished page three, go on to page four, and from there to five and six.

OTIS QUICK-SCORING MENTAL ABILITY TESTS

By ARTHUR S. OTIS, PH.D.

Formerly Development Specialist with Advisory Board, General Staff, United States War Department

Gamma

AM

GAMMA TEST: FORM AM

For Senior High Schools and Colleges

Score.....

Read this page. Do what it tells you to do.

Do not open this booklet, or turn it over, until you are told to do so.

Fill these blanks, giving your name, age, birthday, etc. Write plainly.

Name..... Age last birthday years
First name, initial, and last name
Birthday..... Teacher..... Date..... 19.....
Month Day
Grade..... School..... City.....

This is a test to see how well you can think. It contains questions of different kinds. Here are three sample questions. Five answers are given under each question. Read each question and decide which of the five answers below it is the right answer.

Sample a: Which one of the five things below is soft?

① glass ② stone ③ cotton ④ iron ⑤ ice.....

1 2 3 4 5
||| ||| ||| ||| |||

The right answer, of course, is *cotton*; so the word *cotton* is underlined. And the word *cotton* is No. 3; so a heavy mark has been put in the space under the 3 at the right. This is the way you are to answer the questions.

Try the next sample question yourself. Do not write the answer; just draw a line under it and then put a heavy mark in the space under the right number.

Sample b: A robin is a kind of —

⑥ plant ⑦ bird ⑧ worm ⑨ fish ⑩ flower....

6 7 8 9 10
||| ||| ||| ||| |||

The answer is *bird*; so you should have drawn a line under the word *bird*, and *bird* is No. 7; so you should have put a heavy mark in the space under the 7. Try this one:

Sample c: Which one of the five numbers below is larger than 55?

⑪ 53 ⑫ 48 ⑬ 29 ⑭ 57 ⑮ 16.....

11 12 13 14 15
||| ||| ||| ||| |||

The answer, of course, is 57; so you should have drawn a line under 57, and that is No. 14; so you should have put a heavy mark in the space under the 14.


The test contains 80 questions. You are not expected to be able to answer all of them, but do the best you can. You will be allowed half an hour after the examiner tells you to begin. Try to get as many right as possible. Be careful not to go so fast that you make mistakes. Do not spend too much time on any one question. No questions about the test will be answered by the examiner after the test begins. Lay your pencil down.

Do not turn this booklet until you are told to begin.

Patent No. 1,586,628

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PRINTED IN U.S.A. GAMMA: AM-17

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ANSWER SHEET

Otis Quick-Scoring : Gamma : AM

Page **6**

	66	67	68	69	70
64	1	2	3	4	5
	6	7	8	9	10
65	11	12	13	14	15
	16	17	18	19	20
66	21	22	23	24	25
	26	27	28	29	30
67	31	32	33	34	
	36	37	38		
68	41	42	43	44	
	46	47	48	49	50
69	51	52	53	54	55
	56	57	58	59	60
70	61	62	63	64	65
	66	67	68	69	70
71	71	72	73	74	75
	76	77	78	79	80
72	81	82	83	84	85
	86	87	88	89	
73	91	92	93	94	95
	96	97	98	99	100
74	101	102	103	104	105
	106	107	108	109	110
75	111	112	113	114	115
	116	117	118	119	120
76	121	122	123	124	125
	126	127	128	129	130
77	131	132	133	134	135
	136	137	138	139	140
78	141	142	143	144	145
	146	147	148	149	150
79	151	152	153	154	155
	156	157	158	159	160
80	161	162	163	164	165
	166	167	168	169	170

Page **5**

	66	67	68	69	70
46	1	2	3	4	5
	6	7	8	9	10
47	11	12	13	14	15
	16	17	18	19	20
48	21	22	23	24	25
	26	27	28	29	30
49	31	32	33	34	35
	36	37	38	39	40
50	41	42	43	44	45
	46	47	48	49	50
51	51	52	53	54	55
	56	57	58	59	60
52	61	62	63	64	65
	66	67	68	69	70
53	71	72	73	74	75
	76	77	78	79	80
54	81	82	83	84	85
	86	87	88	89	90
55	91	92	93	94	95
	96	97	98	99	100
56	101	102	103	104	105
	106	107	108	109	110
57	111	112	113	114	115
	116	117	118	119	120
58	121	122	123	124	125
	126	127	128	129	130
59	131	132	133	134	135
	136	137	138	139	140
60	141	142	143	144	145
	146	147	148	149	150
61	151	152	153	154	155
	156	157	158	159	160
62	161	162	163	164	165
	166	167	168	169	170
63	171	172	173	174	175
	176	177	178	179	180

Page **4**

	26	27	28	29	30
22	1	2	3	4	5
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	26	27	28	29	30
25	31	32	33	34	35
	36	37	38	39	40
26	41	42	43	44	45
	46	47	48	49	50
27	51	52	53	54	55
	56	57	58	59	60
28	61	62	63	64	65
	66	67	68	69	70
29	71	72	73	74	75
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32	101	102	103	104	105
	106	107	108	109	110
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39	171	172	173	174	175
	176	177	178	179	180
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41	191	192	193	194	195
	196	197	198	199	200
42	201	202	203	204	205
	206	207	208	209	210
43	211	212	213	214	215
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44	221	222	223	224	225
	226	227	228	229	230
45	231	232	233	234	235
	236	237	238	239	240

Page **3**

	1	2	3	4	5
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	21	22	23	24	25
3	26	27	28	29	30
	31	32	33	34	35
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	41	42	43	44	45
5	46	47	48	49	50
	51	52	53	54	55
6	56	57	58	59	60
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12	116	117	118	119	120
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15	146	147	148	149	150
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16	156	157	158	159	160
	161	162	163	164	165
17	166	167	168	169	170
	171	172	173	174	175
18	176	177	178	179	180
	181	182	183	184	185
19	186	187	188	189	190
	191	192	193	194	195
20	196	197	198	199	200
	201	202	203	204	205
21	206	207	208	209	210
	211	212	213	214	215

NOTE. This Answer Sheet is not intended for machine scoring. [2]

1. The opposite of hate is —

- (1) enemy (2) fear (3) love (4) friend (5) joy

2. If 2 pencils cost 5 cents, how many pencils can be bought for 50 cents?

- (6) 100 (7) 10 (8) 20 (9) 25 (10) 5

3. A dog does not always have —

- (11) eyes (12) bones (13) a nose (14) a collar (15) lungs

4. A recollection that is indefinite and uncertain may be said to be —

- (16) forgotten (17) secure (18) vague (19) imminent (20) fond

5. Which of these words would come first in the dictionary?

- (21) more (22) pile (23) mist (24) pick (25) mine

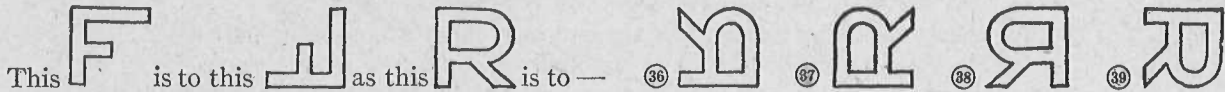
6. A fox most resembles a —

- (26) pig (27) goat (28) wolf (29) tiger (30) cat

7. Gold is more costly than silver because it is —

- (31) heavier (32) scarcer (33) yellower (34) harder (35) prettier

8. The first drawing below is related to the second in the same way that the third one is to one of the remaining four. Which one? →



9. A radio is related to a telephone in the same way that (?) is to a railroad train.

- (41) a highway (42) an airplane (43) gasoline (44) speed (45) noise

10. The opposite of wasteful is —

- (46) wealthy (47) quiet (48) stingy (49) economical (50) extravagant

11. A debate always involves —

- (51) an audience (52) judges (53) a prize (54) a controversy (55) an auditorium

12. A party consisted of a man and his wife, his two sons and their wives, and four children in each son's family. How many were there in the party?

- (56) 7 (57) 8 (58) 12 (59) 13 (60) 14

13. One number is wrong in the following series.

1 5 2 6 3 7 4 9 5 9

What should that number be?

- (61) 9 (62) 7 (63) 8 (64) 10 (65) 5

14. A school is most likely to have —

- (66) maps (67) books (68) a janitor (69) a teacher (70) a blackboard

15. What letter in the word WASHINGTON is the same number in the word (counting from the beginning) as it is in the alphabet?

- (71) A (72) N (73) G (74) T (75) O

16. Which word makes the truest sentence? Fathers are (?) wiser than their sons.

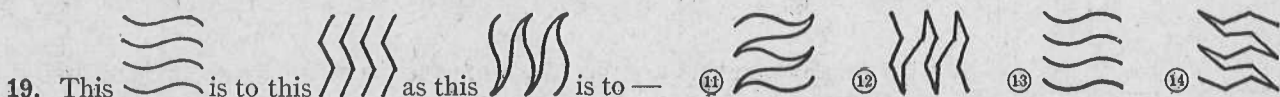
- (76) always (77) usually (78) much (79) rarely (80) never

17. Four of these five things are alike in some way. Which one is not like the other four?

- (1) nut (2) turnip (3) rose (4) apple (5) potatoes

18. The opposite of frequently is —

- (6) occasionally (7) seldom (8) never (9) periodically (10) often










20. At a dinner there is always —

- (16) soup (17) wine (18) food (19) waiters (20) dishes

21. If 10 boxes full of apples weigh 400 pounds, and each box when empty weighs 4 pounds, how many pounds do all the apples weigh?

- (21) 40 (22) 360 (23) 396 (24) 400 (25) 404

22. If a boy can run at the rate of 5 feet in $\frac{1}{5}$ of a second, how many feet can he run in 10 seconds? (26) 1 (27) 50 (28) 250 (29) 2 (30) 25
23. A thermometer is related to temperature as a speedometer is to — (31) fast (32) automobile (33) velocity (34) time (35) heat
24. "State of changing place" is a good definition for — (36) advancement (37) retardation (38) rotation (39) motion (40) revision
25. If the first two statements following are true, the third is (?).
All residents in this block are Republicans.
Smith is not a Republican. Smith resides in this block.
(41) true (42) false (43) not certain
26. If the words below were arranged to make a good sentence, with what letter would the second word of the sentence begin?
same means big large the as
(46) a (47) b (48) m (49) s (50) t
27. Sunlight is to darkness as (?) is to stillness.
(51) quiet (52) sound (53) dark (54) loud (55) moonlight
28. A grandmother is always (?) than her granddaughter.
(56) smarter (57) more quiet (58) older (59) smaller (60) slower
29. Such things as looks, dress, likes, and dislikes indicate one's —
(61) character (62) wisdom (63) personality (64) gossip (65) reputation
30. A tree always has —
(66) leaves (67) fruit (68) buds (69) roots (70) a shadow
31. In general it is safest to judge a man's character by his —
(71) voice (72) clothes (73) deeds (74) wealth (75) face
32. Which of these words is related to many as exceptional is to ordinary?
(76) none (77) each (78) more (79) much (80) few
33. This  is to this  as this  is to — (1)  (2)  (3)  (4) 
34. What is related to a cube in the same way that a circle is related to a square?
(6) circumference (7) corners (8) sphere (9) solid (10) thickness
35. Which one of these pairs of words is most unlike the other three?
(11) run — fast (12) large — big (13) loan — lend (14) buy — purchase
36. The opposite of awkward is —
(16) strong (17) pretty (18) graceful (19) short (20) swift
37. The two words superfluous and requisite mean —
(21) the same (22) the opposite (23) neither same nor opposite
38. Of the five words below, four are alike in a certain way. Which one is not like these four?
(26) push (27) hold (28) lift (29) drag (30) pull
39. The idea that the earth is flat is —
(31) absurd (32) misleading (33) improbable (34) unfair (35) wicked
40. The opposite of loyal is —
(36) treacherous (37) enemy (38) thief (39) coward (40) jealous
41. The moon is related to the earth as the earth is to —
(41) Mars (42) the sun (43) clouds (44) stars (45) the universe
42. The opposite of sorrow is —
(46) fun (47) success (48) joy (49) prosperity (50) hope
43. If the first two statements are true, the third is (?).
Frank is older than George. James is older than Frank.
George is younger than James.
(51) true (52) false (53) not certain
44. If $2\frac{1}{2}$ yards of cloth cost 30 cents, what will 10 yards cost?
(56) \$1.20 (57) 75¢ (58) 40¢ (59) \$3.00 (60) $37\frac{1}{2}$ ¢
45. Congest means to bring together, condole means to grieve together.
Therefore con means — (61) to bring (62) together (63) to grieve (64) to bring or grieve together

46. The law of gravitation is —
 (66) obsolete (67) absolute (68) approximate (69) conditional (70) constitutional.....
47. Oil is to toil as (?) is to hate.
 (71) love (72) work (73) boil (74) ate (75) hat.....
48. If $4\frac{1}{2}$ yards of cloth cost 90 cents, what will $3\frac{1}{2}$ yards cost?
 (76) \$3.15 (77) $86\frac{1}{2}\text{¢}$ (78) 70¢ (79) 89¢ (80) 35¢.....
49. Which number in this series appears a second time nearest the beginning?
 6 4 5 3 7 8 0 9 5 9 8 8 6 5 4 7 3 0 8 9 1
 (81) 9 (82) 0 (83) 8 (84) 6 (85) 5.....

50. This  is to this  as this  is to — (86)  (87)  (88)  (89) .....

51. If the first two statements following are true, the third is (?).
 Some of our citizens are Methodists. Some of our citizens are doctors.
 Some of our citizens are Methodist doctors.
 (1) true (2) false (3) not certain.....

52. Which one of the five words below is most unlike the other four?
 (6) fast (7) agile (8) run (9) quick (10) speedy.....

53. One who says things he knows to be wrong is said to be —
 (11) careless (12) misled (13) conceited (14) untruthful (15) prejudiced.....

54. If the words below were arranged to make the *best* sentence, with what letter would the last word of the sentence end?
 sincerity traits courtesy character of desirable and are
 (16) r (17) y (18) s (19) e (20) d.....

55. If a strip of cloth 36 inches long will shrink to 33 inches when washed, how many inches long will a 48-inch strip be after shrinking?
 (21) 47 (22) 44 (23) 45 (24) 46 (25) $45\frac{1}{2}$

56. Which of these expressions is most unlike the other three?
 (26) draw pictures (27) clean house (28) come home (29) work problems.....

57. If the following words were seen on a wall by looking at a mirror on the opposite wall, which word would appear exactly the same as if seen directly?
 (31) MEET (32) ROTOR (33) MAMA (34) DEED (35) TOOT.....

58. Find the two letters in the word ACTOR which have just as many letters between them in the word as in the alphabet. Which one of these two letters comes first in the alphabet?
 (36) A (37) C (38) T (39) O (40) R.....

59. A surface is related to a line as a line is to a —
 (41) solid (42) plane (43) curve (44) point (45) string.....

60. One number is wrong in the following series.
 1 2 4 7 11 16 23
 What should that number be?
 (46) 3 (47) 6 (48) 10 (49) 16 (50) 22.....

61. This  is to this  as this  is to — (51)  (52)  (53)  (54) .....








62. How many of the following words can be made from the letters in the word STRANGLE, using any letter any number of times?
 greatest, tangle, garage, stresses, related, grease, nearest, reeling
 (56) 7 (57) 6 (58) 3 (59) 4 (60) 5.....

63. Which of the following is a trait of character?
 (61) reputation (62) wealth (63) influence (64) fickleness (65) strength.....

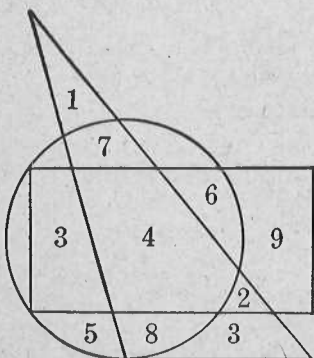
64. A statement the meaning of which is not definite is said to be —
 (66) erroneous (67) doubtful (68) ambiguous (69) distorted (70) hypothetical
65. Evolution is to revolution as crawl is to —
 (71) baby (72) floor (73) stand (74) run (75) hands and knees
66. Coming is to came as now is to —
 (76) today (77) some time (78) tomorrow (79) before now (80) hereafter
67. One number is wrong in the following series.
 1 2 4 8 16 32 64 96
 What should that number be?
 (1) 3 (2) 6 (3) 12 (4) 48 (5) 128

68. If George can ride a bicycle 60 feet while Frank runs 40 feet, how many feet can George ride while Frank runs 30 feet?
 (6) 50 (7) 10 (8) 45 (9) 20 (10) 70
69. What letter is the fourth letter to the left of the letter which is midway between D and I in the word REPRODUCTION?
 (11) C (12) R (13) O (14) N (15) D
70. Which of the five things following is most like these three: ivory, snow, and milk?
 (16) butter (17) rain (18) cold (19) cotton (20) water

71. A hotel serves a mixture of 2 parts cream and 3 parts milk.
 How many pints of milk will it take to make 25 pints of the mixture?
 (21) 25 (22) $16\frac{2}{3}$ (23) 15 (24) $12\frac{1}{2}$ (25) 10
72. A man who spends his money lavishly for non-essentials is considered to be —
 (26) fortunate (27) thrifty (28) extravagant (29) generous (30) economical

73. This  is to this  as this  is to — (31)  (32)  (33)  (34) 
74. If the first two statements following are true, the third is (?).
 One cannot become a good violinist without much practice.
 Charles practices much on the violin. Charles will become a good violinist.
 (36) true (37) false (38) not certain

75. Which of these expressions is most unlike the other three?
 (41) small to tiny (42) pretty to beautiful (43) warm to hot (44) excellent to good
76. If the words below were rearranged to make a good sentence,
 the *fifth* word in the sentence would begin with what letter?
 life friends valuable to The make asset in a is ability
 (46) l (47) f (48) v (49) t (50) a



77. What number is in the space that is in the rectangle and in the triangle but not in the circle?
 (51) 1 (52) 2 (53) 3 (54) 4 (55) 5
78. What number is in the same geometrical figure or figures (and no others) as the number 6?
 (56) 1 (57) 2 (58) 3 (59) 4 (60) 5
79. How many numbers are there each of which is in two geometrical figures but only two?
 (61) 1 (62) 2 (63) 3 (64) 4 (65) 5

80. If a wire 40 inches long is to be cut so that one piece is $\frac{2}{3}$ as long as the other piece, how long must the shorter piece be?
 (66) $26\frac{2}{3}$ in. (67) $39\frac{1}{3}$ in. (68) 18 in. (69) 24 in. (70) 16 in.

THE PERSONALITY INVENTORY

By ROBERT G. BERNREUTER

PUBLISHED BY

STANFORD UNIVERSITY PRESS
STANFORD UNIVERSITY, CALIFORNIA

Date.....

NAME..... Age..... Sex.....

Address.....

Name of school..... School grade.....
or business firm..... or occupation.....

	B1-N	B2-S	B3-I	B4-D	F1-C	F2-S
Plus						
Minus						
Difference						
Percentile	%	%	%	%	%	%

H.S.—COLL.—ADULT

Based on

norms

MALE—FEMALE

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The questions on this blank are intended to indicate your interests and attitudes. It is not an intelligence test, nor are there any right or wrong answers.

In front of each question you will find: "Yes No ?"

If your answer is "Yes," draw a circle around the "Yes." If your answer is "No," draw a circle around the "No." If you are entirely unable to answer either "Yes" or "No" to the question, then draw a circle around the question mark.

1. Yes No ? Does it make you uncomfortable to be "different" or unconventional?
2. Yes No ? Do you day-dream frequently?
3. Yes No ? Do you usually work things out for yourself rather than get someone to show you?
4. Yes No ? Have you ever crossed the street to avoid meeting some person?
5. Yes No ? Can you stand criticism without feeling hurt?
6. Yes No ? Do you ever give money to beggars?
7. Yes No ? Do you prefer to associate with people who are younger than yourself?
8. Yes No ? Do you often feel just miserable?
9. Yes No ? Do you dislike finding your way about in strange places?
10. Yes No ? Are you easily discouraged when the opinions of others differ from your own?
11. Yes No ? Do you try to get your own way even if you have to fight for it?
12. Yes No ? Do you blush very often?
13. Yes No ? Do athletics interest you more than intellectual affairs?
14. Yes No ? Do you consider yourself a rather nervous person?
15. Yes No ? Do you usually object when a person steps in front of you in a line of people?
16. Yes No ? Have you ever tried to argue or bluff your way past a guard or doorman?
17. Yes No ? Are you much affected by the praise or blame of many people?
18. Yes No ? Are you touchy on various subjects?
19. Yes No ? Do you frequently argue over prices with tradesmen or junkmen?
20. Yes No ? Do you feel self-conscious in the presence of superiors in the academic or business world?
21. Yes No ? Do ideas often run through your head so that you cannot sleep?
22. Yes No ? Are you slow in making decisions?
23. Yes No ? Do you think you could become so absorbed in creative work that you would not notice a lack of intimate friends?
24. Yes No ? Are you troubled with shyness?
25. Yes No ? Are you inclined to study the motives of other people carefully?
26. Yes No ? Do you frequently feel grouchy?
27. Yes No ? Do your interests change rapidly?
28. Yes No ? Are you very talkative at social gatherings?
29. Yes No ? Do you ever heckle or question a public speaker?
30. Yes No ? Do you very much mind taking back articles you have purchased at stores?
31. Yes No ? Do you see more fun or humor in things when you are in a group than when alone?
32. Yes No ? Do you prefer travelling with someone who will make all the necessary arrangements to the adventure of travelling alone?
33. Yes No ? Would you rather work for yourself than carry out the program of a superior whom you respect?
34. Yes No ? Can you usually express yourself better in speech than in writing?
35. Yes No ? Would you dislike any work which might take you into isolation for a few years, such as forest ranging, etc.?
36. Yes No ? Have you ever solicited funds for a cause in which you were interested?
37. Yes No ? Do you usually try to avoid dictatorial or "bossy" people?
38. Yes No ? Do you find conversation more helpful in formulating your ideas than reading?

39. Yes No ? Do you worry too long over humiliating experiences?
40. Yes No ? Have you ever organized any clubs, teams, or other groups on your own initiative?
41. Yes No ? If you see an accident do you quickly take an active part in giving aid?
42. Yes No ? Do you get stage fright?
43. Yes No ? Do you like to bear responsibilities alone?
44. Yes No ? Have books been more entertaining to you than companions?
45. Yes No ? Have you ever had spells of dizziness?
46. Yes No ? Do jeers humiliate you even when you know you are right?
47. Yes No ? Do you want someone to be with you when you receive bad news?
48. Yes No ? Does it bother you to have people watch you at work even when you do it well?
49. Yes No ? Do you often experience periods of loneliness?
50. Yes No ? Do you usually try to avoid arguments?
51. Yes No ? Are your feelings easily hurt?
52. Yes No ? Do you usually prefer to do your own planning alone rather than with others?
53. Yes No ? Do you find that telling others of your own personal good news is the greatest part of the enjoyment of it?
54. Yes No ? Do you often feel lonesome when you are with other people?
55. Yes No ? Are you thrifty and careful about making loans?
56. Yes No ? Are you careful not to say things to hurt other people's feelings?
57. Yes No ? Are you easily moved to tears?
58. Yes No ? Do you ever complain to the waiter when you are served inferior or poorly prepared food?
59. Yes No ? Do you find it difficult to speak in public?
60. Yes No ? Do you ever rewrite your letters before mailing them?
61. Yes No ? Do you usually enjoy spending an evening alone?
62. Yes No ? Do you make new friends easily?
63. Yes No ? If you are dining out do you prefer to have someone else order dinner for you?
64. Yes No ? Do you usually feel a great deal of hesitancy over borrowing an article from an acquaintance?
65. Yes No ? Are you greatly embarrassed if you have greeted a stranger whom you have mistaken for an acquaintance?
66. Yes No ? Do you find it difficult to get rid of a salesman?
67. Yes No ? Do people ever come to you for advice?
68. Yes No ? Do you usually ignore the feelings of others when accomplishing some end which is important to you?
69. Yes No ? Do you often find that you cannot make up your mind until the time for action has passed?
70. Yes No ? Do you especially like to have attention from acquaintances when you are ill?
71. Yes No ? Do you experience many pleasant or unpleasant moods?
72. Yes No ? Are you troubled with feelings of inferiority?
73. Yes No ? Does some particularly useless thought keep coming into your mind to bother you?
74. Yes No ? Do you ever upbraid a workman who fails to have your work done on time?
75. Yes No ? Are you able to play your best in a game or contest against an opponent who is greatly superior to you?
76. Yes No ? Have you frequently appeared as a lecturer or entertainer before groups of people?
77. Yes No ? Are people sometimes successful in taking advantage of you?
78. Yes No ? When you are in low spirits do you try to find someone to cheer you up?
79. Yes No ? Can you usually understand a problem better by studying it out alone than by discussing it with others?
80. Yes No ? Do you lack self-confidence?
81. Yes No ? Does admiration gratify you more than achievement?
82. Yes No ? Are you willing to take a chance alone in a situation of doubtful outcome?
83. Yes No ? Does your ambition need occasional stimulation through contact with successful people?

84. Yes No ? Do you usually avoid asking advice?
85. Yes No ? Do you consider the observance of social customs and manners an essential aspect of life?
86. Yes No ? If you are spending an evening in the company of other people do you usually let someone else decide upon the entertainment?
87. Yes No ? Do you take the responsibility for introducing people at a party?
88. Yes No ? If you came late to a meeting would you rather stand than take a front seat?
89. Yes No ? Do you like to get many views from others before making an important decision?
90. Yes No ? Do you try to treat a domineering person the same as he treats you?
91. Yes No ? Does your mind often wander so badly that you lose track of what you are doing?
92. Yes No ? Do you ever argue a point with an older person whom you respect?
93. Yes No ? Do you have difficulty in making up your mind for yourself?
94. Yes No ? Do you ever take the lead to enliven a dull party?
95. Yes No ? Would you "have it out" with a person who spread untrue rumors about you?
96. Yes No ? At a reception or tea do you feel reluctant to meet the most important person present?
97. Yes No ? Do you find that people are more stimulating to you than anything else?
98. Yes No ? Do you prefer a play to a dance?
99. Yes No ? Do you tend to be radical in your political, religious, or social beliefs?
100. Yes No ? Do you prefer to be alone at times of emotional stress?
101. Yes No ? Do you usually prefer to work with others?
102. Yes No ? Do you usually work better when you are praised?
103. Yes No ? Do you have difficulty in starting a conversation with a stranger?
104. Yes No ? Do your feelings alternate between happiness and sadness without apparent reason?
105. Yes No ? Are you systematic in caring for your personal property?
106. Yes No ? Do you worry over possible misfortunes?
107. Yes No ? Do you usually prefer to keep your feelings to yourself?
108. Yes No ? Can you stick to a tiresome task for a long time without someone prodding or encouraging you?
109. Yes No ? Do you get as many ideas at the time of reading a book as you do from a discussion of it afterward?
110. Yes No ? Do you usually face your troubles alone without seeking help?
111. Yes No ? Have you been the recognized leader (president, captain, chairman) of a group within the last five years?
112. Yes No ? Do you prefer making hurried decisions alone?
113. Yes No ? If you were hiking with a group of people, where none of you knew the way, would you probably let someone else take the full responsibility for guiding the party?
114. Yes No ? Are you troubled with the idea that people on the street are watching you?
115. Yes No ? Are you often in a state of excitement?
116. Yes No ? Are you considered to be critical of other people?
117. Yes No ? Do you usually try to take added responsibilities on yourself?
118. Yes No ? Do you keep in the background at social functions?
119. Yes No ? Do you greatly dislike being told how you should do things?
120. Yes No ? Do you feel that marriage is essential to your present or future happiness?
121. Yes No ? Do you like to be with people a great deal?
122. Yes No ? Can you be optimistic when others about you are greatly depressed?
123. Yes No ? Does discipline make you discontented?
124. Yes No ? Are you usually considered to be indifferent to the opposite sex?
125. Yes No ? Would you feel very self-conscious if you had to volunteer an idea to start a discussion among a group of people?

AN INVENTORY OF FACTORS STDCR

Manual of Directions and Norms

The Factors Described.—This Inventory was developed on the basis of factor-analysis studies of items in personality questionnaires.¹ The factors S, T, D, C, and R taken together probably cover the area of personality generally encompassed by the concept of introversion-extroversion. The factors may be described as follows:²

- S—social introversion, as exhibited in shyness and tendencies to withdraw from social contacts.
- T—thinking introversion, an inclination to meditative thinking, philosophizing, and analyzing one's self and others.
- D—depression, including feelings of unworthiness and guilt.
- C—cycloid tendencies, as shown in strong emotional reactions, fluctuations in mood, and tendency toward flightiness or instability.
- R—rhythymia, a happy-go-lucky or carefree disposition; liveliness and impulsiveness.

The Scoring Weights.—The 175 items of the Inventory were retained after successive tests of internal consistency of the responses of 400 university students who were predominantly at the sophomore level. The Inventory is therefore best applied to similar individuals, and should give valid results only when there is reasonable cooperation from the testees. The keys for factors S, D, and C give all significant responses a weight of one point and those for factors T and R weight some responses two points. The demand for simplicity of scoring weights was dictated by the requirements of machine scoring. It was found that unweighted scoring lowered the reliability coefficients not more than .03 in any case as compared with differentially weighted scoring, and actually increased the reliability in one or two instances.

Use of the Scoring Keys.—In scoring the Inventory, first lay the transparent key for page one, factor S, upon the column of responses. If the top and bottom of the key coincide with the top and bottom of the test booklet, with the three columns of 1's in line with the three responses "Yes, ?, No," then count the number of 1's that fall upon encircled responses. Repeat similarly for other factors, and other pages, adding one or two points for each significant response, as the key is marked. The score in each factor is the total number of points.

Reliability of the Scores.—The reliability of scoring an inventory of this type can only be estimated. A combining of alternate sixths of the items into two pools of approximately equal lists and a use of the Spearman-Brown formula gave estimated reliabilities of .92, .89, .91, .91, and .89 for factors S, T, D, C, and R, respectively in a population of 200 (100 men and 100 women) selected at random from the criterion group. In an entirely new group of 100 (50 men and 50 women) similarly estimated reliabilities were: .90, .84, .94, .88, and .90, respectively. Corresponding reliabilities in the same population by the Kuder-Richardson³ method were .92, .85, .90, .87, and .91.

Correlations among the Scores.—Intercorrelations among the scorings occur, as is usually true with inventories of this type. The factorial studies revealed some actual correlations (positive) among factors S, T, and D, ranging in the neighborhood of .50. A small negative correlation between factors D and R was also indicated. Previous experience has shown that the correlations between scorings may be different than those among the factors. Scorings may be significantly correlated even when the factors are not, due to the fact that the scorings cannot be pure indicators of traits. The intercorrelations of the five scorings of this Inventory vary somewhat from one population to another, but the following table is typical:

	S	T	D	C
T	.15			
D	.49	.15		
C	.33	.14	.85	
R	-.54	-.21	-.36	-.02

Centile Norms

(Based upon 388 University of Nebraska students)

Centile	S	T	D	C	R	Centile
99	41	58	50	60	75	99
95	37	53	44	53	65	95
90	35	49	39	47	61	90
80	28	45	33	40	55	80
70	24	42	29	35	49	70
60	20	39	24	32	46	60
50	17	36	21	28	42	50
40	14	33	18	25	38	40
30	12	30	15	22	33	30
20	9	26	12	19	28	20
10	7	22	8	15	22	10
5	4	20	5	12	18	5
1	2	10	2	6	10	1

¹See particularly J. P. Guilford and R. B. Guilford, *Personality Factors, D, R, T, and A*, *Journal of Abnormal and Social Psychology*, 1939, 34, 21-36.

²Each factor actually represents a dimension of personality with two opposite poles. In each case the more descriptive end of the scale is regarded as the positive end. S, T, and D poles include characteristics traditionally regarded as introverted. The R pole includes extroverted tendencies and the C pole includes some of both, e.g., daydreaming, and also emotional expressiveness.

³G. F. Kuder and M. W. Richardson, *The Theory of the Estimation of Test Reliability*, *Psychometrika*, 1937, 2, 151-160.

AN INVENTORY OF FACTORS S T D C R

Name..... Sex..... Date.....

Scores: S 36 T 42 D 40 C 21 R 15

INSTRUCTIONS: Below you will find some questions which are to be answered by encircling either "Yes," "?," or "No." Read each question in turn, think what your behavior has usually been, and **draw a circle around the answer** that describes your behavior best. Encircle the "?" only when you are unable to decide between the "Yes" and the "No." BE SURE TO ANSWER EVERY QUESTION. There is no implication of right or wrong in any of these questions.

1. Do you express yourself more easily in speech than in writing?.....Yes ? No 1
2. Are you inclined to limit your acquaintances to a select few?.....Yes ? No 2
3. Do you generally prefer to take the lead in group activities?.....Yes ? No 3
4. Are you ordinarily a carefree individual?.....Yes ? No 4
5. Do you like work that requires considerable attention to details?.....Yes ? No 5
6. Are you inclined to be moody?.....Yes ? No 6
7. Do you usually have difficulty in starting conversations with strangers?.....Yes ? No 7
8. Are you inclined to act on the spur of the moment without thinking things over?.....Yes ? No 8
9. Do you work much better when you are praised?.....Yes ? No 9
10. Do you like to change from one type of work to another frequently?.....Yes ? No 10
11. Are you self-conscious in the presence of your superiors?.....Yes ? No 11
12. Do you daydream frequently?.....Yes ? No 12
13. Do you subscribe to the philosophy of "Eat, drink, and be merry, for tomorrow we die?".....Yes ? No 13
14. Are you inclined to worry over possible misfortunes?.....Yes ? No 14
15. Are you frequently somewhat absent-minded?.....Yes ? No 15
16. Are you relatively unconcerned about what others think of your actions?.....Yes ? No 16
17. Are you inclined to keep in the background on social occasions?.....Yes ? No 17
18. Are you more interested in athletics than in intellectual things?.....Yes ? No 18
19. Are you impatient when waiting for a member of your family or for friends?.....Yes ? No 19
20. Do you like to speak in public?.....Yes ? No 20
21. Are you inclined to live in the present, leaving the past and the future out of your thoughts?.....Yes ? No 21
22. Do you have frequent ups and downs in mood, either with or without apparent cause? Yes ? No 22
23. Are you inclined to be slow and deliberate in movement?.....Yes ? No 23
24. Are your feelings rather easily hurt?.....Yes ? No 24
25. Do you enjoy getting acquainted with most people?.....Yes ? No 25
26. Are you inclined to keep quiet when out in a social group?.....Yes ? No 26
27. Do you adapt yourself easily to new conditions, that is, new places, situations, surroundings, etc.?.....Yes ? No 27
28. Do you express such emotions as delight, sorrow, anger, and the like, readily?.....Yes ? No 28
29. Are you inclined to think about yourself much of the time?.....Yes ? No 29
30. Are you inclined to analyze the motives of others?.....Yes ? No 30
31. Do you usually keep in close touch with things going on around you?.....Yes ? No 31
32. Do you often have the "blues"?.....Yes ? No 32
33. Do you "get rattled" easily at critical moments?.....Yes ? No 33

(Publisher: Sheridan Supply Co., Beverly Hills, Calif.)

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34. Is it usually difficult for you to make decisions?.....Yes ? ☒ No 34
35. Do you ever feel that the world is distant and unreal to you?.....Yes ? ☒ No 35
36. Is it difficult to "lose yourself" even at a lively party?.....Yes ? ☒ No 36
37. Do you shrink from speaking in public?.....Yes ? ☒ No 37
38. Do you have difficulty in making new friends?.....Yes ? ☒ No 38
39. Would you rate yourself as an impulsive person?.....Yes ? ☒ No 39
40. Were you ever the "life of the party"?.....Yes ? ☒ No 40
41. Are you frequently in low spirits?.....Yes ? ☒ No 41
42. Does it bother you to have people watch you at your work?.....Yes ? ☒ No 42
43. Do you frequently find yourself in a meditative state?.....Yes ? ☒ No 43
44. Are your daydreams frequently about things that can never come true?.....Yes ? ☒ No 44
45. Are you inclined to be shy in the presence of the opposite sex?.....Yes ? ☒ No 45
46. Are you inclined to be overconscientious?.....Yes ? ☒ No 46
47. Do you often crave excitement?.....Yes ? ☒ No 47
48. Do your interests change very quickly?.....Yes ? ☒ No 48
49. Are you inclined to ponder over your past?.....Yes ? ☒ No 49
50. Do you ever feel "just miserable" for no good reason at all?.....Yes ? ☒ No 50
51. Are you often troubled about feelings of guilt?.....Yes ? ☒ No 51
52. Do you often experience periods of loneliness?.....Yes ? ☒ No 52
53. Are you much depressed when others criticize you?.....Yes ? ☒ No 53
54. Are you worried about being shy?.....Yes ? ☒ No 54
55. Would you rather spend an evening reading at home than to attend a large party?..Yes ? ☒ No 55
56. Do you worry over humiliating experiences longer than the average person?.....Yes ? ☒ No 56
57. Would you like a position in which you changed from one kind of task to another frequently during the day?.....Yes ? ☒ No 57
58. Do you often find that you have made up your mind too late?.....Yes ? ☒ No 58
59. Would you rate yourself as a tense or "high-strung" individual?.....Yes ? ☒ No 59
60. Does your mind often wander while you are trying to concentrate?.....Yes ? ☒ No 60
61. Do you nearly always have a "ready answer" for remarks directed to you?.....Yes ? ☒ No 61
62. Are you inclined to "jump at conclusions"?.....Yes ? ☒ No 62
63. Do you usually prefer to let some one else take the lead on social occasions?.....Yes ? ☒ No 63
64. Do you ever daydream?.....Yes ? ☒ No 64
65. Do you ever change from happiness to sadness, or vice versa, without good reasons?..Yes ? ☒ No 65
66. Do you usually derive pleasure from being "in the limelight" on social occasions?..Yes ? ☒ No 66
67. Is it difficult to hurt your feelings, even when the joke is on you?.....Yes ? ☒ No 67
68. Do you often try to find the underlying motives for the actions of other people?.....Yes ? ☒ No 68
69. Are you inclined to stop and think things over before acting?.....Yes ? ☒ No 69
70. Do you generally feel uncomfortable when you are the center of attention on a social occasion?.....Yes ? ☒ No 70
71. Do you consider yourself less emotional than the average person, that is, less easily upset?.....Yes ? ☒ No 71
72. After a critical moment is over, do you usually think of something you should have done but failed to do?.....Yes ? ☒ No 72
73. Would you rate yourself as a lively individual?.....Yes ? ☒ No 73
74. Are you philosophically inclined?.....Yes ? ☒ No 74
75. Do you often have a feeling of unworthiness?.....Yes ? ☒ No 75
76. Can you usually keep cheerful in spite of troubles?.....Yes ? ☒ No 76
77. Do you like to play pranks upon others?.....Yes ? ☒ No 77
78. Do you often feel that people are observing you on the street?.....Yes ? ☒ No 78
79. Do you feel lonesome even when with other people?.....Yes ? ☒ No 79
80. Are you troubled with feelings of inferiority?.....Yes ? ☒ No 80
81. Would you rather be a scientist than a politician?.....Yes ? ☒ No 81
82. Are you inclined to take life too seriously?.....Yes ? ☒ No 82

83. In social conversations, are you usually a listener rather than a talker?.....Yes ? ☒ No 83
84. Do you frequently feel that people around you are talking about you?.....Yes ? ☒ No 84
85. Do you like to have time to be alone with your thoughts?Yes ? ☒ No 85
86. Do you find it difficult to go to sleep at night because experiences of the day keep "running through your head"?.....Yes ? ☒ No 86
87. Are you inclined to take your work casually, that is, as a matter of course?.....Yes ? ☒ No 87
88. Are you inclined to avoid meeting certain people on the street (bill collectors and the like not included)?.....Yes ? ☒ No 88
89. Do you find it easy, as a rule, to make new acquaintances?Yes ? ☒ No 89
90. Are you inclined to be quick and sure in your actions?Yes ? ☒ No 90
91. Are you troubled about being self-conscious?.....Yes ? ☒ No 91
92. Do you often feel restless while listening to a lecture?Yes ? ☒ No 92
93. Do you believe that people often misunderstand what you say?.....Yes ? ☒ No 93
94. Do you limit your friendships mostly to members of your own sex?.....Yes ? ☒ No 94
95. Does your mind wander badly so you lose track of what you are doing?.....Yes ? ☒ No 95
96. Are you often in a state of excitement?.....Yes ? ☒ No 96
97. Do you dislike to talk about yourself, even to close friends?.....Yes ? ☒ No 97
98. Do you prefer to be conservative in the matter of dress and personal appearance?....Yes ? ☒ No 98
99. Do you like to discuss the more serious questions of life with your friends?.....Yes ? ☒ No 99
100. Are you inclined to keep your opinions to yourself during group discussions (not class discussions)?.....Yes ? ☒ No 100
101. Do you enjoy thinking out complicated problems?.....Yes ? ☒ No 101
102. Are you inclined to be introspective, that is, to analyze yourself?.....Yes ? ☒ No 102
103. Are there times when you seek to be alone and you cannot bear the company of anyone?Yes ? ☒ No 103
104. Are you much concerned over the morals of others?Yes ? ☒ No 104
105. Do you frequently take time out just to meditate about things in general?.....Yes ? ☒ No 105
106. Are you usually unconcerned about the future?.....Yes ? ☒ No 106
107. Do you usually become so absorbed in watching an athletic contest that you completely forget yourself?.....Yes ? ☒ No 107
108. Can you relax yourself easily when sitting down?.....Yes ? ☒ No 108
109. Are you usually a "good mixer"?.....Yes ? ☒ No 109
110. Do you usually prefer a "slapstick" comedy to a serious drama at the movies?.....Yes ? ☒ No 110
111. Do you frequently find it difficult to go to sleep at night, even though you are tired?..Yes ? ☒ No 111
112. Would you rate yourself as a happy-go-lucky individual?Yes ? ☒ No 112
113. Do you ever take your work as if it were a matter of life or death?.....Yes ? ☒ No 113
114. Do you often "have the time of your life" at social affairs?Yes ? ☒ No 114
115. Do you think there is a great deal more happiness in the world than misery?.....Yes ? ☒ No 115
116. Are you frequently "lost in thought"?.....Yes ? ☒ No 116
117. Have you often lost sleep over your worries?.....Yes ? ☒ No 117
118. Do you like to mix socially with people?.....Yes ? ☒ No 118
119. Do you believe that the morals of modern youth are generally superior to those of former generations?.....Yes ? ☒ No 119
120. Are you inclined to think over your failures long after they are past?.....Yes ? ☒ No 120
121. Are there times when your mind seems to work very slowly and other times when it works very rapidly?.....Yes ? ☒ No 121
122. Are you inclined to avoid all people whenever possible?Yes ? ☒ No 122
123. Do you enjoy participating in a showing of "Rah Rah" enthusiasm?.....Yes ? ☒ No 123
124. Do you usually feel disappointments so keenly that you cannot get them out of your mind?Yes ? ☒ No 124
125. Do you derive more real satisfaction from social activities than from anything else?..Yes ? ☒ No 125
126. When you stop to consider your future, does it usually seem very optimistic?.....Yes ? ☒ No 126
127. Are you sometimes so "blue" that life seems hardly worth living?.....Yes ? ☒ No 127

128. Do you usually take the initiative in making new friends? Yes ? No 128
129. Do you spend a great deal of time in thinking over past mistakes? Yes ? No 129
130. Would you be very unhappy if you were prevented from making numerous social contacts? Yes ? No 130
131. Do you often feel that there are very few things in life worth living for? Yes ? No 131
132. Do you often run over in your mind the events of the day before going to sleep at night? Yes ? No 132
133. Do you often feel that social affairs are a waste of time? Yes ? No 133
134. Do you frequently feel grouchy? Yes ? No 134
135. Are you annoyed when a boisterous person attracts attention to himself in public? ... Yes ? No 135
136. Are you frequently bored with people? Yes ? No 136
137. When failing to have your own way, do you often resort to resentful thinking? ... Yes ? No 137
138. Do you usually keep in fairly uniform spirits? Yes ? No 138
139. Do you usually prefer to take your recreations with companions rather than alone? ... Yes ? No 139
140. Are you usually in good spirits? Yes ? No 140
141. Have you ever been bothered by having a useless thought come into your mind repeatedly? Yes ? No 141
142. Are you usually well-poised in your social contacts? Yes ? No 142
143. Does it upset you much to lose in a competitive game? Yes ? No 143
144. Do you spend much time in thinking over good times you have had in the past? Yes ? No 144
145. Are you often hesitant about meeting important people? Yes ? No 145
146. Do you feel tired most of the time? Yes ? No 146
147. Do you ever have a queer feeling that you are not your old self? Yes ? No 147
148. Is it easy for you to act naturally at a party? Yes ? No 148
149. Do you get tired of people rather quickly? Yes ? No 149
150. Do you like to have many social engagements? Yes ? No 150
151. Do you ever have to fight against bashfulness? Yes ? No 151
152. Are you frequently "lost in thought" even when supposed to be taking part in a conversation? Yes ? No 152
153. Do people find fault with you more than you deserve? Yes ? No 153
154. Do you often feel conspicuous in a group of people? Yes ? No 154
155. Are you sometimes bubbling over with energy and sometimes very sluggish? Yes ? No 155
156. Do you often speculate about why people behave as they do? Yes ? No 156
157. Do you find it almost impossible to take another person fully into your confidence? ... Yes ? No 157
158. Have you found books more interesting than people? Yes ? No 158
159. Have you often felt listless and tired for no good reason? Yes ? No 159
160. Do you prefer action to planning for action? Yes ? No 160
161. Do you often philosophize about the purpose of human existence? Yes ? No 161
162. Do you become angry very quickly and also recover very quickly? Yes ? No 162
163. Do you often think or dream of what you will be doing five years from now? Yes ? No 163
164. When you are bored do you feel like stirring up some excitement? Yes ? No 164
165. Do you usually feel well and strong? Yes ? No 165
166. Do you enjoy entertaining people? Yes ? No 166
167. Is your own mood very easily influenced by people around you, that is, by happy people or sad people? Yes ? No 167
168. Does it embarrass you a great deal to say or do the wrong thing in a social group? ... Yes ? No 168
169. Do you like to indulge in a reverie (daydreaming)? Yes ? No 169
170. Do you believe that "every cloud has a silver lining"? Yes ? No 170
171. Do you often feel ill at ease with other people? Yes ? No 171
172. Can you usually let yourself go and have a hilariously good time at a gay party? ... Yes ? No 172
173. Do you dislike to stop and analyze your own thoughts and feelings? Yes ? No 173
174. Are you inclined to avoid all complicated problems of any sort? Yes ? No 174
175. Do you think such questionnaires as this one are "silly"? Yes ? No 175

DIRECTIONS

Read these directions CAREFULLY as the test administrator reads them aloud.

Look at SAMPLE A, consider which of the four alternatives is the BEST answer. Which is the SECOND best? The THIRD best?

SAMPLE A

Why do football players wear padding?

- | | | | | | |
|---|-----|--------------|--------------|--------------|---|
| a. To make them look formidable | (1) | a | x | c | d |
| b. To protect themselves against injury | (2) | a | b | x | d |
| c. To be able to hit opponents harder | (3) | x | b | c | d |
| d. To increase their weight | | | | | |

Alternative "b" is the best answer. You will notice that the letter "b" to the right of (1) in the first row, which indicates the best answer, is crossed out. The second choice is "c", so letter "c" in the second row, to the right of (2), is crossed out. The third choice, "a", is similarly marked. Now then, turn to the ANSWER SHEET and under SAMPLE A cross out "b" in row (1), "c" in row (2) and "a" in row (3) just as was done in SAMPLE A above.

Now look at SAMPLE B. Which alternative is the BEST answer?

SAMPLE B

Why do most nations maintain armies?

- a. To stimulate patriotic feeling
- b. To protect their interest abroad
- c. To train their young men physically
- d. To defend themselves against attack

Mark your answer on the ANSWER SHEET under SAMPLE B as you did in SAMPLE A by crossing out the letter to the right of (1) which indicates your best answer. Which is the SECOND best? The THIRD best? Mark your answers on the second and third rows. WAIT FOR THE ANSWERS TO BE ANNOUNCED BEFORE READING FURTHER.

There are 48 questions on the following pages. Note, however, that the first NINE questions call for the BEST answer ONLY. So cross out only the letter representing the best answer. The remaining questions call for the first, second and third choices. Do these in exactly the same way as you did the sample questions. If you make a mistake be sure you erase the cross completely and then cross out the correct letter.

IF YOU DO NOT THOROUGHLY UNDERSTAND WHAT YOU ARE EXPECTED TO DO BE SURE TO ASK THE TEST ADMINISTRATOR AT THIS TIME (you may do so by raising your hand).

PRACTICAL JUDGMENT TEST

Alfred J. Cardall

SCORE

Name _____

Wt. of 1 - 1(R) _____

Date _____

Wt. of 2 - 2(R) _____

SAMPLE A

SAMPLE B

Wt. of 4 - 4(R) _____

(1) a b c d
(2) a b c d
(3) a b c d

(1) a b c d
(2) a b c d
(3) a b c d

TOTAL SCORE _____

(1) a b c d
(2) a b c d
(3) a b c d
(4) a b c d
(5) a b c d
(6) a b c d
(7) a b c d
(8) a b c d
(9) a b c d

(18) 1. a b c d
2. a b c d
3. a b c d

(29) 1. a b c d
2. a b c d
3. a b c d

(40) 1. a b c d
2. a b c d
3. a b c d

(10) 1. a b c d
2. a b c d
3. a b c d

(19) 1. a b c d
2. a b c d
3. a b c d

(30) 1. a b c d
2. a b c d
3. a b c d

(41) 1. a b c d
2. a b c d
3. a b c d

(11) 1. a b c d
2. a b c d
3. a b c d

(20) 1. a b c d
2. a b c d
3. a b c d

(31) 1. a b c d
2. a b c d
3. a b c d

(42) 1. a b c d
2. a b c d
3. a b c d

(12) 1. a b c d
2. a b c d
3. a b c d

(21) 1. a b c d
2. a b c d
3. a b c d

(32) 1. a b c d
2. a b c d
3. a b c d

(43) 1. a b c d
2. a b c d
3. a b c d

(13) 1. a b c d
2. a b c d
3. a b c d

(22) 1. a b c d
2. a b c d
3. a b c d

(33) 1. a b c d
2. a b c d
3. a b c d

(44) 1. a b c d
2. a b c d
3. a b c d

(14) 1. a b c d
2. a b c d
3. a b c d

(23) 1. a b c d
2. a b c d
3. a b c d

(34) 1. a b c d
2. a b c d
3. a b c d

(45) 1. a b c d
2. a b c d
3. a b c d

(15) 1. a b c d
2. a b c d
3. a b c d

(24) 1. a b c d
2. a b c d
3. a b c d

(35) 1. a b c d
2. a b c d
3. a b c d

(46) 1. a b c d
2. a b c d
3. a b c d

(16) 1. a b c d
2. a b c d
3. a b c d

(25) 1. a b c d
2. a b c d
3. a b c d

(36) 1. a b c d
2. a b c d
3. a b c d

(47) 1. a b c d
2. a b c d
3. a b c d

(17) 1. a b c d
2. a b c d
3. a b c d

(26) 1. a b c d
2. a b c d
3. a b c d

(37) 1. a b c d
2. a b c d
3. a b c d

(48) 1. a b c d
2. a b c d
3. a b c d

(27) 1. a b c d
2. a b c d
3. a b c d

(38) 1. a b c d
2. a b c d
3. a b c d

(28) 1. a b c d
2. a b c d
3. a b c d

(39) 1. a b c d
2. a b c d
3. a b c d

Nov. 10, 1944

PRACTICAL JUDGMENT PERCENTILES

Raw Score	Percentile	Raw Score	Percentile
277	100	189	46
246	99	188	45
241	98	187	44
237	97	186	43
234	96	185	42
232	95	184	41
229	94	183	39
227	93	182	37
226	92	181	36
225	91	180	35
223	90	179	34
222	89	178	33
220	88	177	31
219	87	176	30
218	86	175	29
217	84	174	28
216	83	173	27
215	82	172	26
214	81	171	25
213	80	170	24
212	79	169	23
211	78	168	22
210	76	167	21
209	75	166	20
208	74	165	19
207	73	163	18
206	71	161	17
205	70	160	16
204	69	158	15
203	68	157	14
202	66	155	13
201	65	152	12
200	63	150	11
199	61	147	10
198	60	144	9
197	59	141	8
196	58	136	7
195	56	132	6
194	54	125	5
193	53	114	4
192	51	102	3
191	49	95	2
190	48	82	1

**TEST OF
MECHANICAL COMPREHENSION
FORM AA**

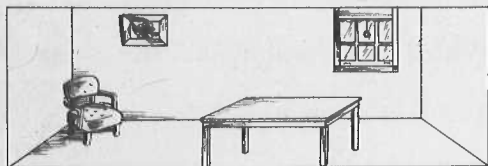
George K. Bennett, Ph.D.

DIRECTIONS

Fill in the blanks on your ANSWER SHEET. Write your last name first, the date, your age in years and months, and your school. Now draw a circle around the highest grade that you have finished in school.

Now line up your answer sheet with the test booklet so that the "Page 1" arrow on the booklet meets the "Page 1" arrow on the answer sheet. Then look at Sample X on this page. It shows pictures of two rooms and asks, "Which room has more of an echo?" Room "A" has more of an echo because it has no rug or curtains, so a circle is drawn around "A" on the answer sheet. Now look at Sample Y, and answer it yourself. Draw a circle around the right answer on the answer sheet.

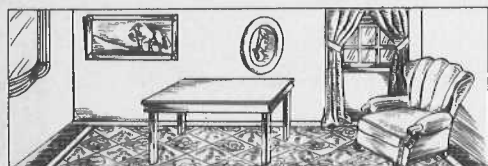
PAGE 1 →



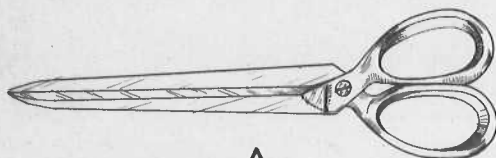
A

X

Which room has more of an echo?



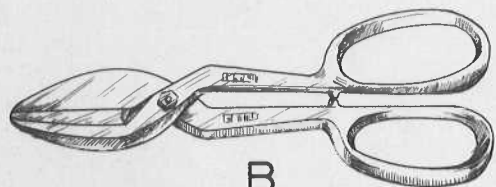
B



A

Y

Which would be the better shears
for cutting metal?

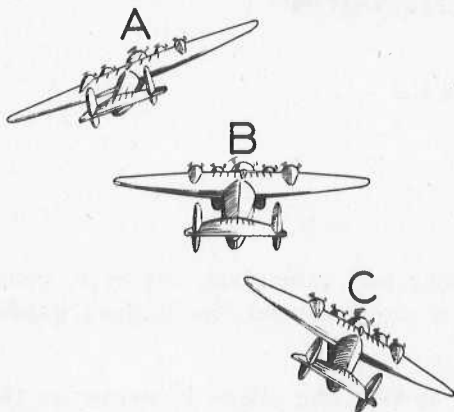


B

On the following pages there are more pictures and questions. Read each question carefully, look at the picture, and draw a circle around the best answer on the answer sheet. Be sure that you use the right column on the answer sheet for each page. The arrow on the page should meet the arrow on the answer sheet.

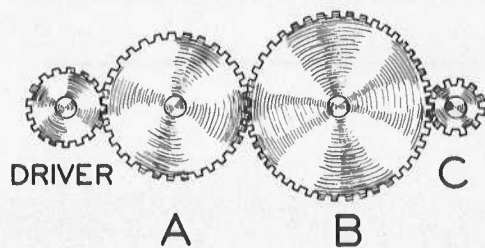
DO NOT MARK THIS BOOKLET — PUT YOUR ANSWERS ON THE ANSWER SHEET.

Copyright 1940
The Psychological Corporation
522 Fifth Avenue
New York, N. Y.



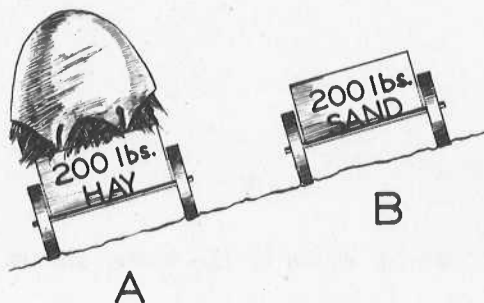
1

Which airplane is turning to the right?



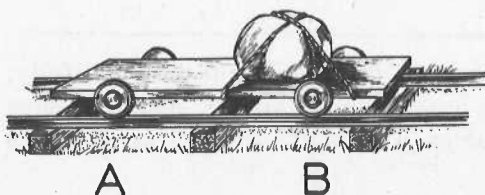
2

Which gear will make the most turns in a minute?



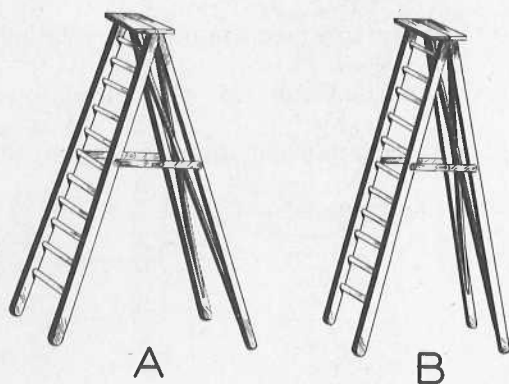
3

Which cart is more likely to tip over on the hillside?



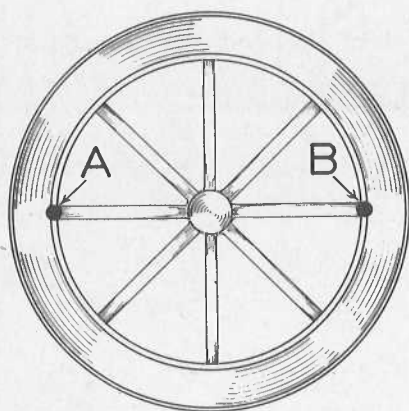
4

Which wheel presses harder against the rail?



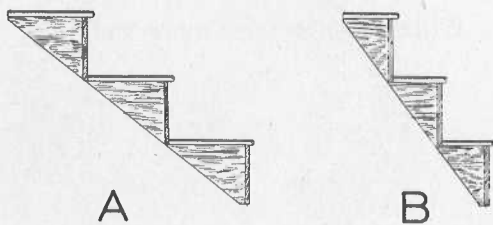
5

Which stepladder is safer to climb on?



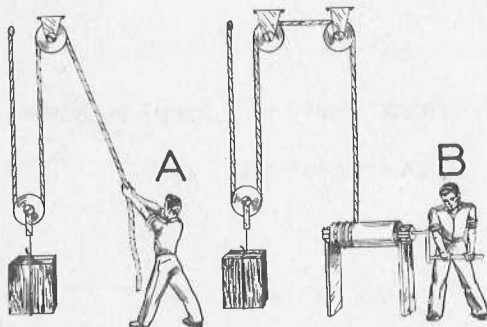
6

Which spot on the wheel travels faster?



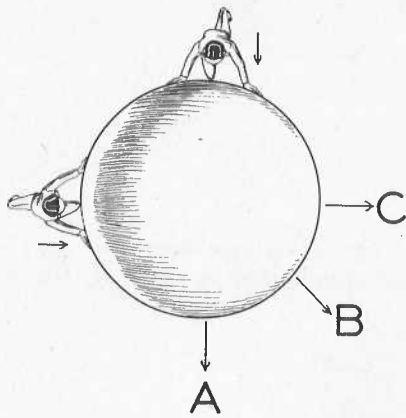
7

Which staircase would take less room?



8

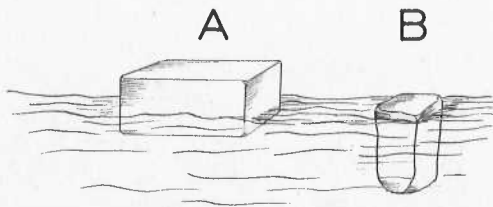
Which man can lift more weight?



9

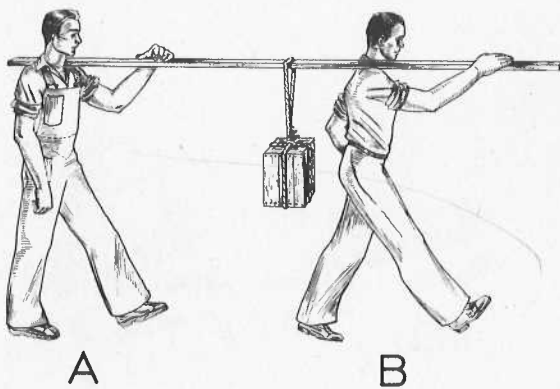
PAGE 4 →

If the two men are pushing against the pushball in the directions shown, in which direction is it most likely to go?



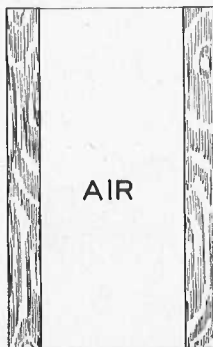
10

Which of these objects is made of the heavier material?

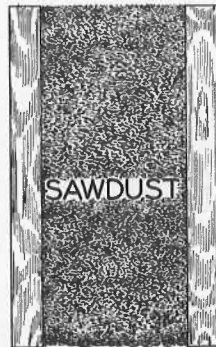


11

Which man carries more weight?



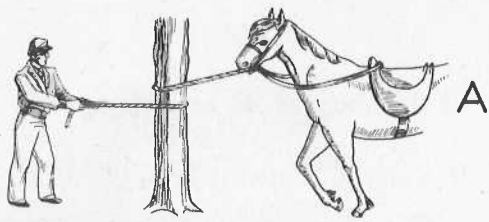
A



B

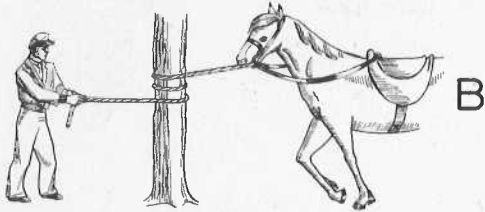
12

Which wall will keep a house warmer in winter?

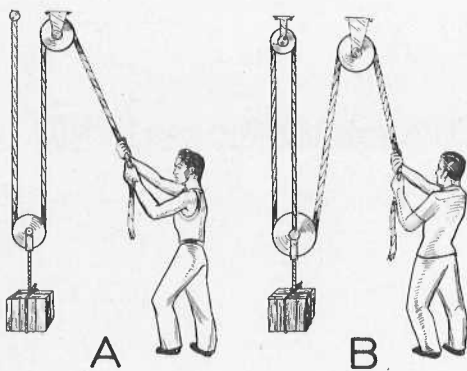


13

Which horse will be harder to hold?

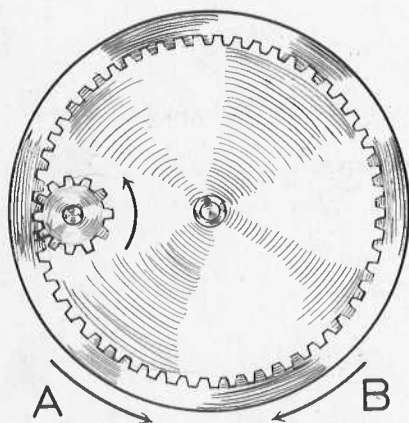
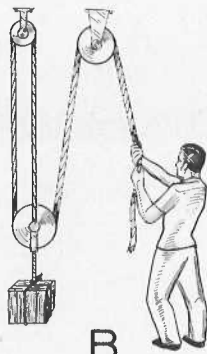


PAGE 5



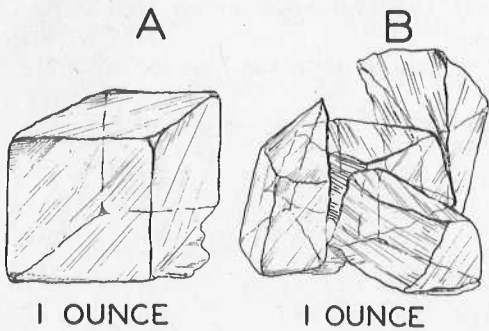
14

Which man has to pull harder?



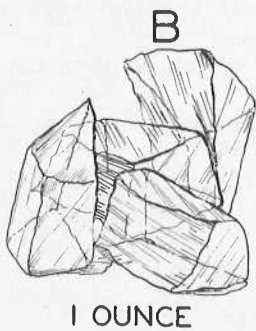
15

If the small wheel goes in the direction shown, in which direction will the large wheel go?

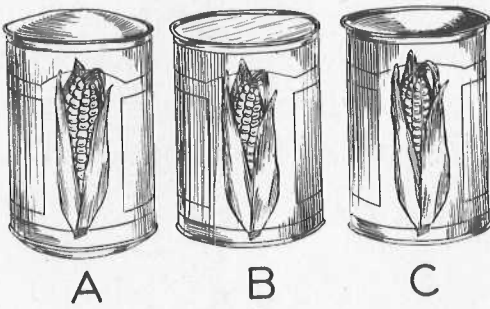


16

Which ounce of ice will cool a drink more quickly?

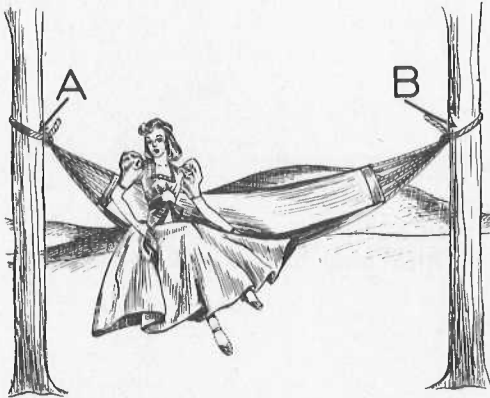


PUT YOUR ANSWERS ON THE ANSWER SHEET.



17

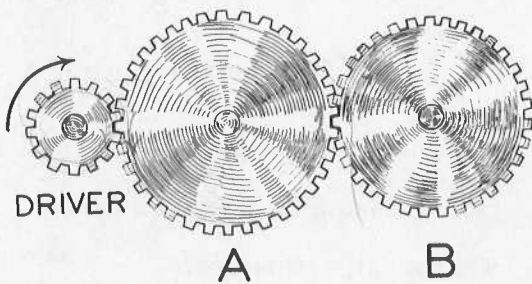
If a can is heated it is most likely to look like:



PAGE 6

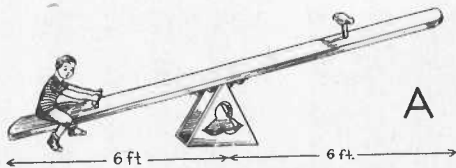
18

Which rope is under more strain?



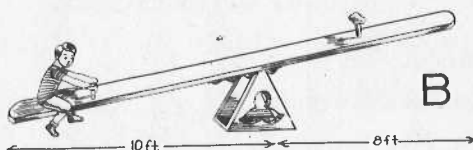
19

Which gear will turn the same way as the driver?

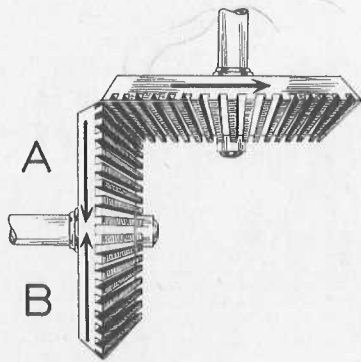


20

If the two boys weigh the same, which of them can balance a heavier boy on the other end of his seesaw?

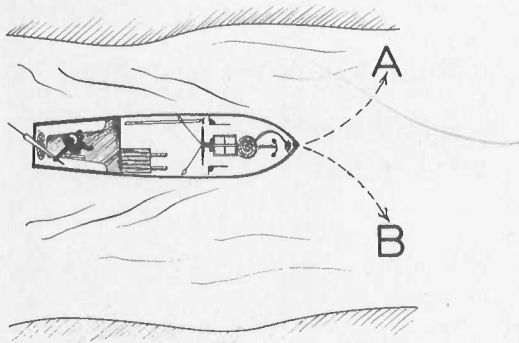


Do Not Stop. Go On to the Next Page.



21

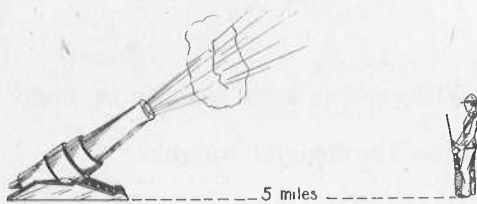
If the upper wheel moves in the direction shown, in which direction does the other one move?



22

PAGE 7 →

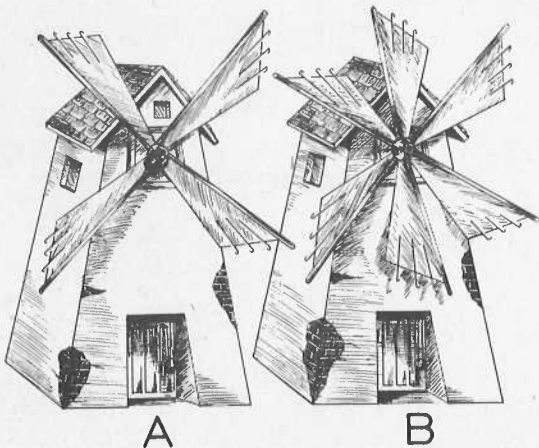
Which way will the boat go?



23

The man will hear the sound of the cannon:

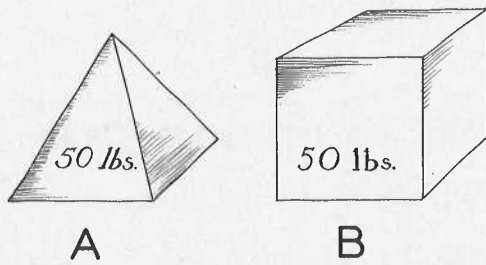
- A—before he sees the flash,
- B—after he sees the flash,
- C—at the same time as he sees the flash.



24

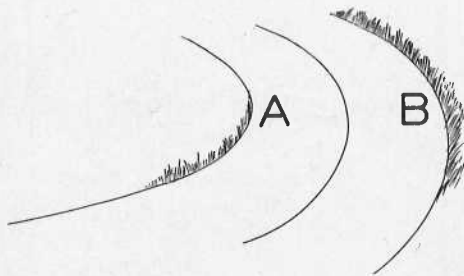
Which windmill will do more work?

PUT YOUR ANSWERS ON THE ANSWER SHEET.



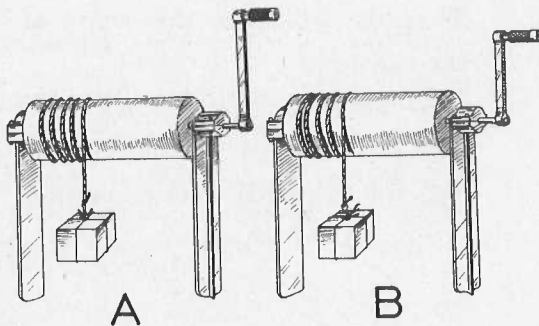
25

Which of these solid blocks will be the harder to tip over?



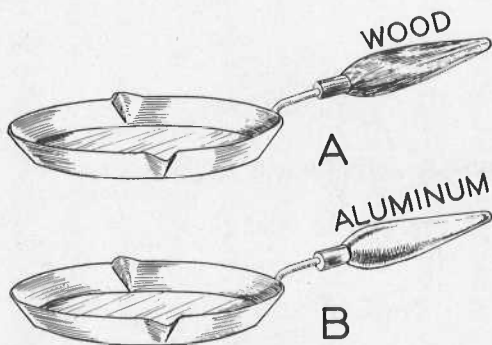
26

Which side of the road should be built higher?



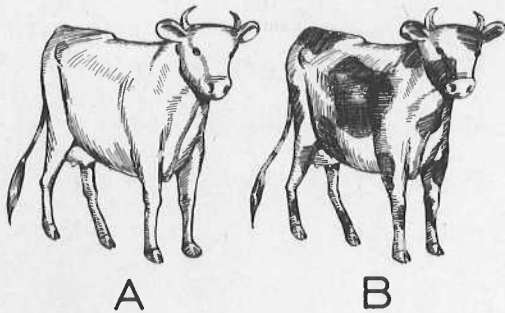
27

With which windlass can a man raise the heavier weight?



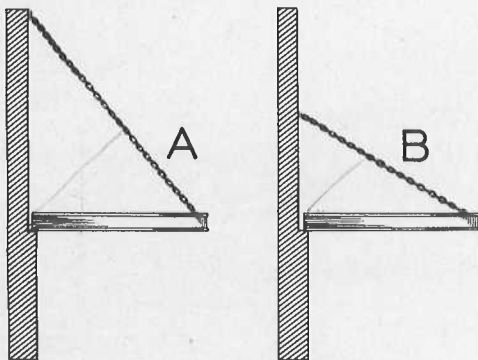
28

Which frying pan will be easier to handle?



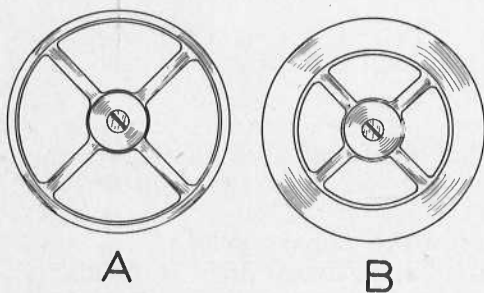
29

Which cow would be harder to see from an airplane?



30

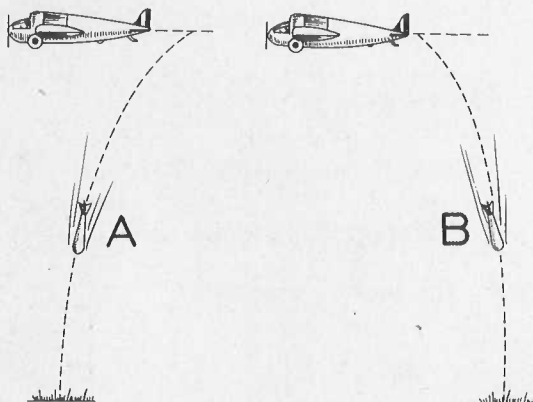
Which chain has more strain put upon it?



31

PAGE 9 →

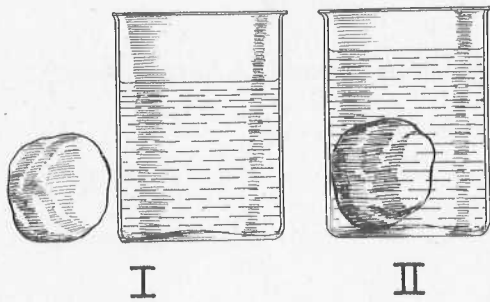
Which wheel will keep going longer after the power has been shut off?



32

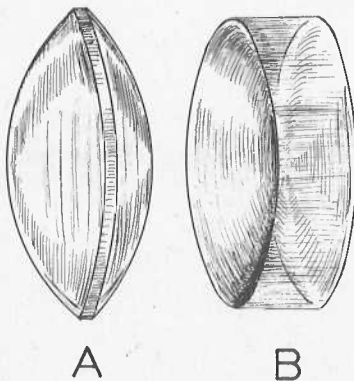
Which picture shows the way a bomb falls from a moving airplane if there is no wind?

33



If the rock and tank of water together in picture I weigh 100 pounds, what will they weigh in picture II?

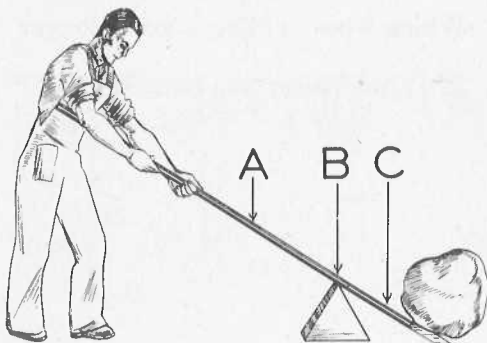
34



If light travels more slowly through glass than through air, which shape lens will make objects look larger?

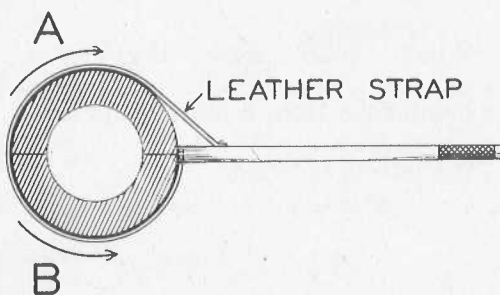
35

PAGE 10 →



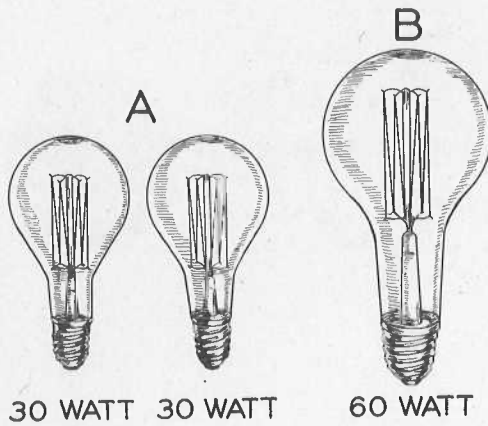
If a man were lifting a stone with this crowbar, at which point would the bar be most likely to break?

36



This wrench can be used to turn the pipe in direction:

PUT YOUR ANSWERS ON THE ANSWER SHEET.

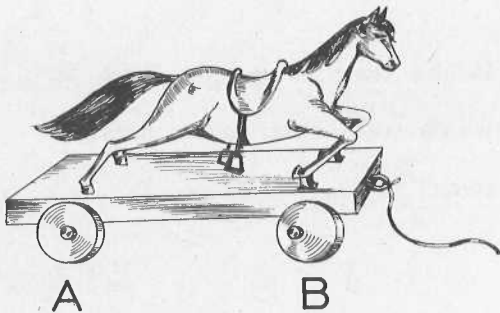


37

Which will use more current: the two bulbs at A, or the one bulb at B?

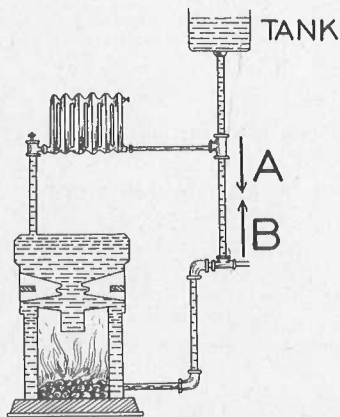
38

Which end of the toy horse will buck more when it is pulled along the floor?



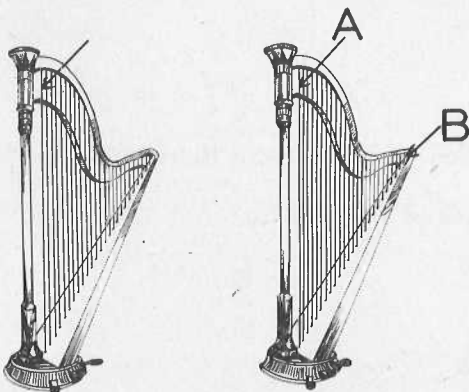
39

In which direction does the water in the right hand pipe go?



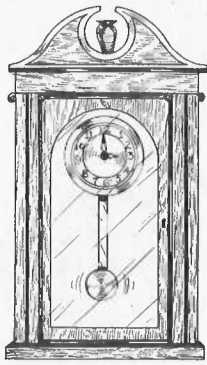
40

If the string shown by the arrow is plucked on the first harp, which string on the second harp will be more likely to sound?

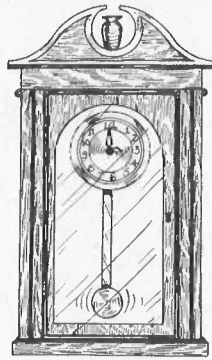


Do Not Stop. Go On to the Next Page.

PUT YOUR ANSWERS ON THE ANSWER SHEET.



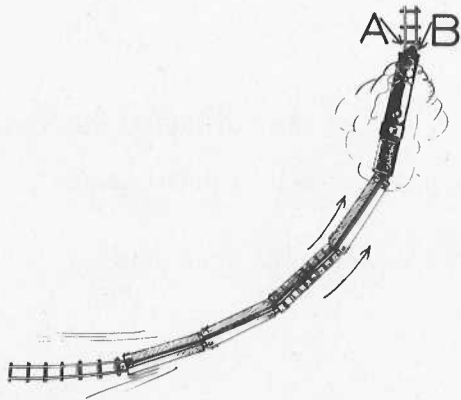
A



B

41

Which of these clocks will tick faster?



42

If the track is exactly level, on which rail does more pressure come?



A



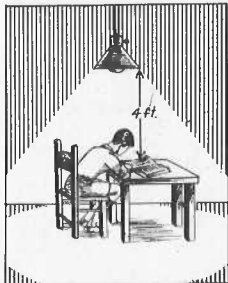
B

43

If there are no clouds, on which night will you be able to see more stars?

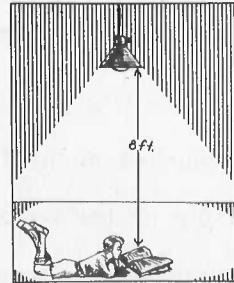
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50 WATT BULB



A

100 WATT BULB



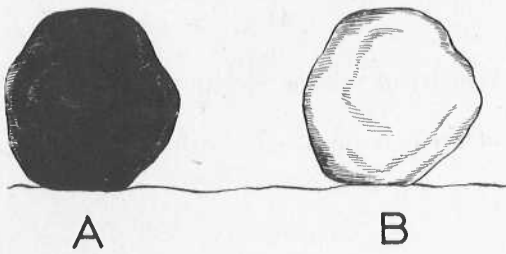
B

44

Which boy gets more light on the pages of his book?

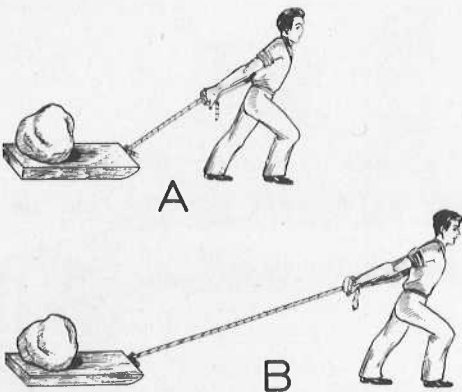
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PUT YOUR ANSWERS ON THE ANSWER SHEET.



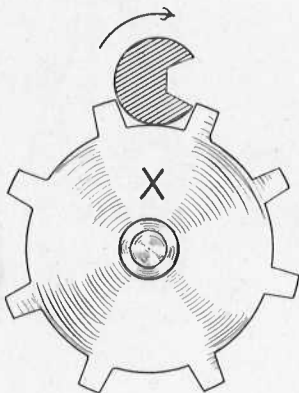
45

Which rock will get hotter in the sun?



46

Which way can the man pull the heavier load on a dry, smooth road?

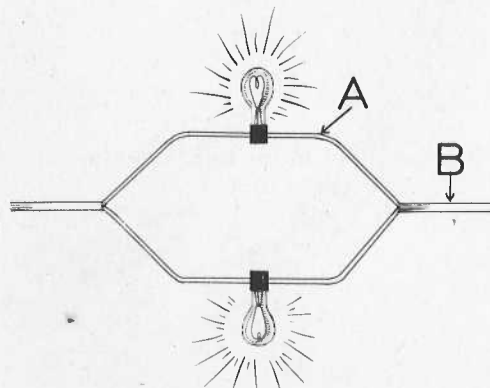


47

The top of the wheel "X" will go:

- A—steadily to the right,
- B—steadily to the left,
- C—by jerks to the left.

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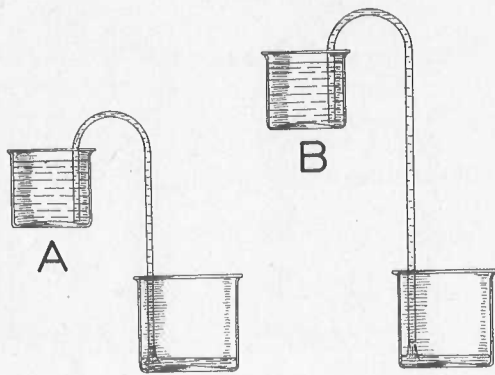


48

Which wire carries more current?

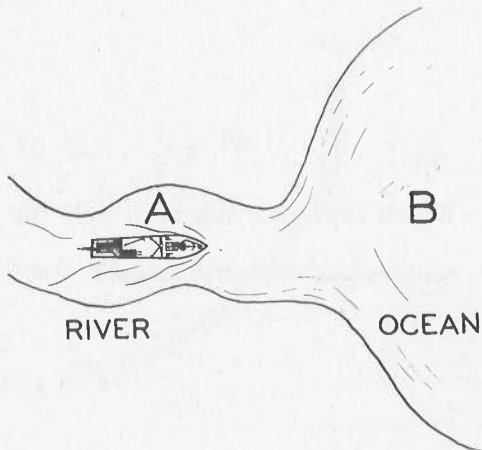
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PUT YOUR ANSWERS ON THE ANSWER SHEET.



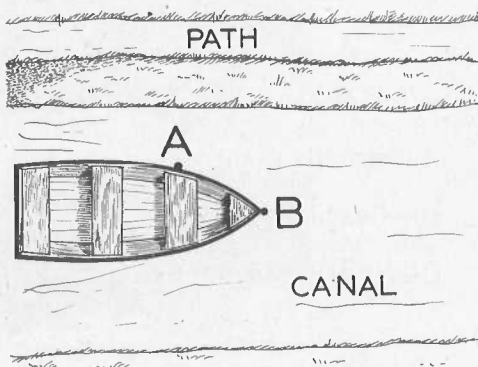
49

Which tank will empty faster?



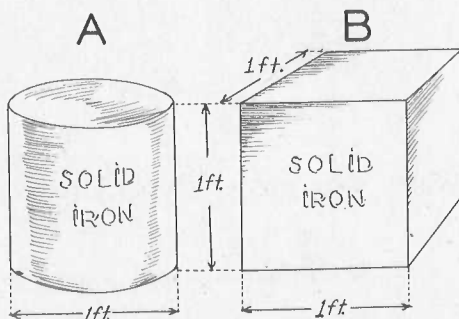
50

At which point will the boat be lower in the water?



51

To pull this boat along the canal, at which point is it better to attach the rope?

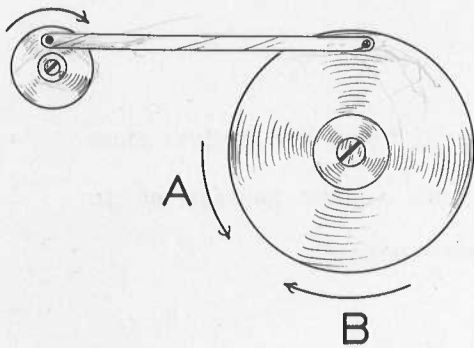


52

Which weighs more?

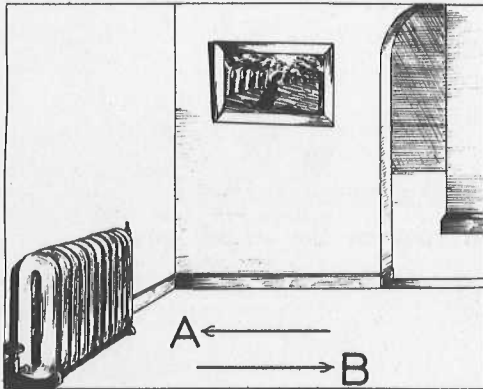
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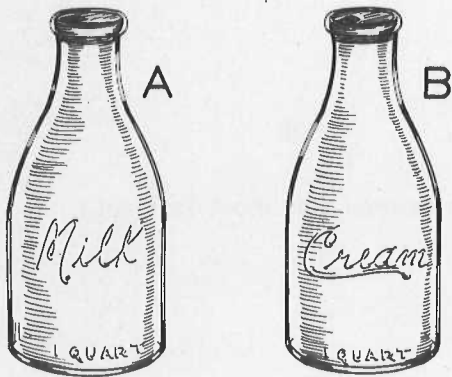
When the little wheel turns around,
the big wheel will:

- A—turn in direction A,
- B—turn in direction B,
- C—move back and forth.



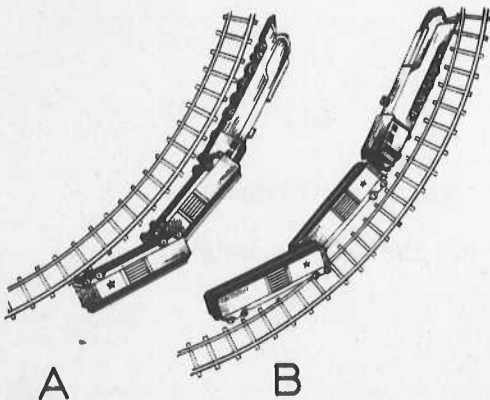
54

Which arrow shows the way the
air will move along the floor when
the radiator is turned on?



55

Which weighs more?



56

Which of these is the more likely
picture of a train wreck?

PUT YOUR ANSWERS ON THE ANSWER SHEET.



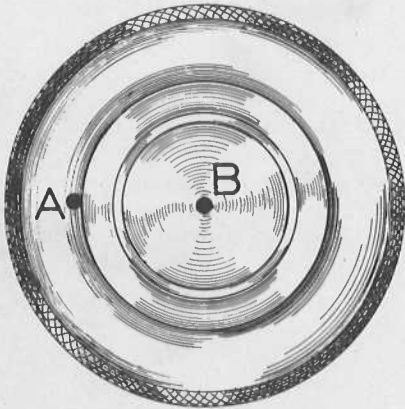
A



B

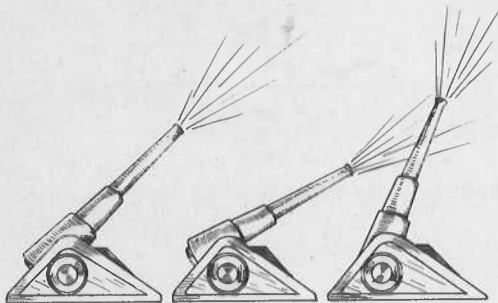
57

Which of these wires offers more resistance to the passage of an electric current?



58

Which spot on the wheel travels faster?



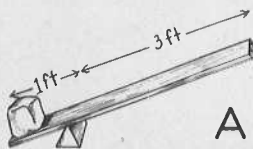
A

B

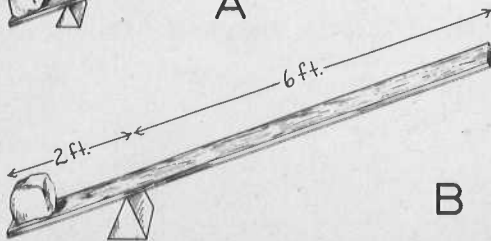
C

59

Which cannon will shoot farthest?



A



B

60

With which arrangement can a man lift the heavier weight?