

G & T GENERAL ABILITY

Book 2

YEAR

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6

Edition 1

Circle the Correct Response

1. Consider the sequence

$$15 \times 15 = 225$$

$$25 \times 25 = 625$$

$$45 \times 45 = 2025$$

$$\therefore 65 \times 65 = ?$$

a 3025

b 3625

c 4025

d 4225

2. A triangle has a perimeter 12cm and an area of 6cm^2 . If each side of the triangle is doubled the new area would be

a 12cm

b 18

c 24

d cannot determine the are from the information given

3. Which number goes in the empty square?

| | | |
|----|---|----|
| 9 | 7 | 11 |
| 12 | 5 | 19 |
| 7 | 3 | |

a 35

b 17

c 13

d 11

4. Ann can jump further than Betty. Mary can jump further than Helen. Helen can't jump as far as Betty. Who can jump the least distance?

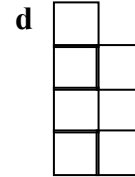
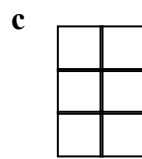
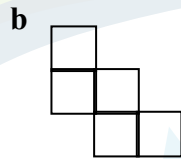
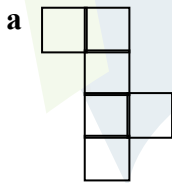
a Ann

b Betty

c Mary

d Helen

5. Which pattern below can be folded up to make a cube?



6. In a school of 600 children $\frac{1}{2}$ come to school by bus, $\frac{1}{4}$ by train, 65 children ride bicycles, and the rest walk. How many children walk to school?

a 150

b 85

c 65

d you can't tell

7. I have two numbers. I form their product and their sum and find that the difference between their product and their sum equals the difference between the two original numbers. The two numbers could be

a 9 and 4

b 6 and 3

c 7 and 2

d 5 and 4

29. The numbers in each box go together by following the same rule. Decide what the rule is, and then find the mission number (?) that goes in the last box

| |
|------|
| 2, 4 |
|------|

| |
|------|
| 4,16 |
|------|

| |
|------|
| 1, ? |
|------|

a 1 b 2 c 3 d 4

30. There are four children in a family. Simon is 4 years older than Rachel and 5 years younger than Stephen. Judy is 2 years younger than Rachel. How old will Judy be, when Stephen is 20 years?

- a 31 years b 11 years c 9 years d 29 years**
-

31. In a foreign language, HIFTA HOPPY HAHA means HEAVY RAIN MONDAY and HOFTA HOPPY HAHA means HEAVY RAIN TUESDAY. What is the foreign word for MONDAY?

- a HAHA b HIFTA c HOFTA d HOPPY**
-

32. Anne, Louise, Don and George are seated around a table. Anne is on Don's left. The girls are not seated next to each other. If George and Louise change place, who is on Don's right?

- a Don b Anne c Louise d George**
-

33. What is the missing number?

| | | | | |
|-------------|---|----|----|---|
| a 54 | 3 | 4 | 5 | 2 |
| b 18 | 1 | 26 | 30 | 1 |
| c 42 | 3 | 49 | ? | 7 |
| d 23 | 6 | 2 | 1 | 2 |

34. Farmer Len keeps pigs, cows and horses. There are twice as many cows as there are horses and pigs in total. There is also only $\frac{1}{3}$ as many horses as there are pigs. In numbers there are 16 more pigs than horses. The number of cows equal to

- a 24 b 32 c 48 d 64**
-

35. In 2007 there are 53 Mondays. Therefore, 25th December 2007 falls on a

- a Sunday b Monday c Tuesday d Wednesday**
-

35. **c** Tuesday; 53 Mondays implies 31st December is Monday, thus 25th Dec = Tuesday
36. **d** \$20 profit. Sum of cost prices = \$80, Sum of selling prices = \$100
37. **a** 4 minutes One carpenter nails one board in 4 minutes. Thus 80 carpenters will nail 80 boards in 4 minutes
38. **c** INTRUDE. Numbers by letters. Code -1 then + 1 alternates, gives result
39. **a** 8 Middle number = sum of squares of outside numbers.
 $3^2 + 7^2 + 2^2 + 8^2 = 126$
40. **b** MUSICAL. Convert letters to numbers. Sequence +1 then +2 alternatively
41. **c** MIRO
42. **d** the original number in room B was 12.
43. **a** 355 Add 10 x 30 to original sum
44. **c** 400g $H + J = 1200g$, $1/4H + J = 600g$. $3/4H = 600g$. Thus $H = 800g$, $J = 400g$
45. **b** 7 days. Let amount of cordial = 36 units. J drinks 3u/day, A drinks 2u/day. Together A & J drink 5u/day, hence 7.2 days to drink cordial
46. **c** 7.1 cm, 3.9 cm, 3 cm. Sum of two sides of triangle has to be $> 3^{\text{rd}}$ side.
 $3.9 + 3 < 7.1$
47. **a** 8 Sequence 6, 6^2 , 7, 7^2 , 8, 8^2
48. **a** 12. Number of cubes visible = $9 + 3 \times 5 = 24$. Not visible $36 - 24 = 12$
49. **c** 10 Made up of 2 squares in each face of 4×3 (8 cubes) plus 1 at each end. Thus number painted yellow = $4 \times 2 + 2 \times 1 = 10$
50. **b** 12. Middle edge cubes on each face
51. **b** 8 The 8 corners of original prism
52. **d** 2 The two cubes in the middle of middle layer
53. **c** 152. The sequence is 2, 6, 15, 34, 73. The first row of differences is 4, 9, 19, 39. The next row of differences is 5, 10, 20... the next term in this sequence is 40, the next term in the first row of differences is $39 + 40 = 79$, The next term in the first row is $73 + 79 = 152$
54. **b** 7. The middle term is the difference between the sums of the two rows,
 $(11+7)-(3+4)=11$, $(10+8)-(6+9)=3$, $(5+13)-(3+7)=8$
55. **a** south west. Clockwise + and anti-clockwise -, after all rotations -135 degrees
56. **d** 225° Rotated anti-clockwise 135° , hence result
57. **c** 6 m Circumference = 3 x diameter, diameter increased by 2, C increased by 6
58. **c** N 29 Letters to numbers. Sequence E, G, J, _ S, becomes 5, 7, 10, _ 19. Differences form sequence 2, 3, 4, 5 (gives N), Number sequence: 11, 15, 21, 29, 39 Differences form sequence 4, 6, 8, 10 gives number 29
59. **c** equal to the greatest number. Check with digits 1, 3, 5, 7
60. **b** 14. In the first circle the differences are 1, 2. In the second circle the differences are 3, 6. The pattern for 3rd circle would have differences 4, 8. Can check the 8 thus first difference is 4, $18 - 4 = 14$