## Sample 11+ Assessment Test - Maths

Allow 50 minutes to do this test. Work as quickly and as carefully as you can.
If you want to answer these questions in multiple-choice format, use the separate multiple-choice answer sheet. If you'd prefer to answer them in standard write-in format, either write your answers in the spaces provided or circle the correct answer from the options $\mathbf{A}$ to $\mathbf{E}$.

1. Which of the following is the most likely weight of a bag of flour?
A $\quad 2 \mathrm{~g}$
B 2 litres
C $\quad 2000 \mathrm{~kg}$
D 200 mm
E 2 kg
2. Look at the grid on the right.

Molly starts at the star. She moves 2 squares south-west, 2 squares north and one square east.
What shape will she arrive at?

A rectangle
C pentagon
B arrow
D circle

3. Look at the bus timetable on the right. Jemima lives on Hart Street. She wants to arrive at Maple Lane before 10:15.
What time should she catch the bus

| Hart Street | $8: 30$ | $9: 10$ | $9: 50$ | $10: 30$ | $11: 10$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Warwick Street | $8: 47$ | $9: 27$ | $10: 07$ | $10: 47$ | $11: 27$ |
| Maple Lane | - | $9: 39$ | - | $10: 59$ | - |
| Harbour Road | $9: 08$ | $9: 48$ | $10: 28$ | $11: 08$ | $10: 48$ | from Hart Street?

Answer: $\qquad$
4. How many thirds are there in 9 ?
A 3
B 18
C 9
D 27
E 30
5. Look at the shape on the right.

Which angle is obtuse?
A
B
C
D
E

6. A class of Year 6 children were asked whether they liked tigers, giraffes or lions. The Venn diagram shows their answers. How many children said they liked both tigers and giraffes, but not lions?
A 6
C 5
E 3
B 2
D 7


Carry on to the next question $\rightarrow \rightarrow$
7. Which of these numbers is the smallest?
A 0.7
C 7.7
E 7.07
B 0.77
D 77.0
8. The length of each side of this shape is 4 cm .

What is the perimeter of the shape?
Answer: $\qquad$ cm

9. Forty-seven thousand, nine hundred and eighty-three people went to a football match.

What is this number rounded to the nearest thousand?
A 47000
C 100000
E 47900
B 50000
D 48000
10. There are 25 CDs in a box. A shop orders 14 boxes.

How many CDs did the shop order?
Answer: $\qquad$
11. A class of children were asked what their favourite sandwich filling is. The results are shown by this bar chart. $25 \%$ of children said they liked ham. What percentage chose tuna?

Answer: $\qquad$ \%

12. What fraction of this shape is shaded?
A $2 / 3$
C $7 / 12$
E $1 / 2$
B $3 / 5$
D $3 / 4$

13. Which of the following statements is correct?
A $5.2 \times 10<52$
C $52>520 \div 100$
E $\quad 52 \times 10<52$
B $52>5200$
D $520<52$
14. A factory makes 4596 nails in a week. 2914 of the nails are sold.

How many nails are left over?
Answer:
15. Ibrahim is trying to work out the volume of a swimming pool.

What units should he measure the volume in?
A $\mathrm{mm}^{3}$
B $\mathrm{m}^{2}$
C $\mathrm{cm}^{2}$
D $\mathrm{m}^{3}$
E $\mathrm{cm}^{3}$
16. Sunita has 75 pens and she ties them into bundles of 8 .

How many pens does she have left over?
Answer: $\qquad$
17. What is $21.7 \times 9.4$ ?
A 287.68
C 117.24
E 412.96
B 532.42
D 203.98
18. Which three numbers can go in the shaded box of the table?
A $1,2,5$
D $5,7,11$
B 2, 5, 7
E $5,7,10$
C 7, 14, 35

|  | factors of 55 | factors of 70 |
| :---: | :---: | :---: |
| $<10$ | 1,5 | $1,2,5,7$ |
| Prime | 5,11 |  |

19. What is $3 / 5$ of 60 ?
A 30
B 24
C 40
D 32
E 36
20. What number is the arrow pointing at?
A 4.55
C 4.53
B 4.3
D 4.45
E 4.5

21. Marvin made a pie chart to show the eye colours of the children in his class.
What is the modal eye colour?
A green
C grey
B blue
D amber

22. Which of these calculations gives the largest amount?
A $\quad 21 \times 20-18+19$
C $\quad 20 \times 18-19+21$
E $\quad 20 \times 19-21+18$
B $18 \times 19-21+20$
D $21 \times 18-20+19$
23. Mark buys a scarf, two badges and a whistle from a sports shop. How much change does he receive from $£ 20.00$ ?
A £12.04
C $£ 11.04$
E £11.00
B $£ 12.96$
D $£ 11.96$

| scarf | $£ 3.99$ |
| :---: | :---: |
| football | $£ 5.99$ |
| whistle | $£ 1.99$ |
| badge | 99 p |
| trophy | $£ 2.99$ |

24. Winston is packing eggs into egg boxes. He puts 6 eggs into each egg box.

How many complete egg boxes can he fill with 106 eggs?
Answer: $\qquad$
25. When this net is folded into a cube the opposite faces of the cube add up to 12 .

What is the missing number?
Answer: $\qquad$

26. What is the next number in this sequence?

| 23 | 35 | 47 | 59 | $?$ |
| :--- | :--- | :--- | :--- | :--- |

Answer: $\qquad$
27.

$$
622 \times 110=68420
$$

What is $55 \times 622$ ?
A 34210
B 11405
C 31605
D 13704
E 34420
28. Ashley measured the height of his garage door. It was 2.345 m tall.

What is 2.345 m rounded to the nearest 10 cm ?
A 2.4 m
B 2.35 m
C 2.3 m
D $\quad 2.34 \mathrm{~m}$
E 3 m
29. The average temperature in May is $18^{\circ} \mathrm{C}$.

The average temperature in November is a third of the average temperature in May.
The average temperature in September is twice the average temperature in November.
What is the average temperature in September?
Answer: $\qquad$ ${ }^{\circ} \mathrm{C}$
30. Shania has 3 pieces of wool to make a bracelet. One piece is 160 mm long, another piece is 26 cm long and the last piece is 0.45 m long.

What is the total length of wool, in centimetres, that Shania has?
Answer: $\qquad$ cm
31. The diagram shows the plan of Ridzuan's living room.

What is the area of the living room?
Answer: $\qquad$ $\mathrm{m}^{2}$
32. What is the sum of the factors of 21 ?

A 21
B 7
C 42
D 32
E 11
33. Chris weighs 74.2 kg , Carrie weighs 67.8 kg and Colleen weighs 69.4 kg .

What is the range of their weights?
Answer: $\qquad$ kg
34. Shane has 15 cards. 3 of Shane's cards are aces. Liz takes a card at random from Shane. What is the probability that Liz takes an ace?
A $3 / 5$
B $\quad 1 / 3$
C $1 / 5$
D $1 / 4$
E $3 / 8$
35. This spinner is made of 6 equilateral triangles.

What is the size of the shaded angle shown?
Answer: $\qquad$。

36. Sandra is building a model boat. She uses

54 pieces of wood which weigh 20 g each.
What is the total weight, in kilograms, of the wood used in the model boat?
Answer: $\qquad$ kg
37. $\mathrm{A}, \mathrm{B}$ and C are three corners of a square.

What are the coordinates of the 4th corner?
Answer: ( $\qquad$ , _ )

38. Which of the following statements is true?

A Most prime numbers end in 5 .
B 2 is not a prime number.
C Prime numbers only have one factor.
D The sum of the first 3 prime numbers is 10 .
E All prime numbers are odd.
39. Both of these cuboids are identical. Each of their square ends has an area of $4 \mathrm{~cm}^{2}$ and they are both 15 cm long. What is the total volume of these two cuboids combined?
A $240 \mathrm{~cm}^{3}$
C $\quad 120 \mathrm{~cm}^{3}$
E $30 \mathrm{~cm}^{3}$
B $480 \mathrm{~cm}^{3}$
D $60 \mathrm{~cm}^{3}$

40. Mary keeps some animals on her farm.

She has 12 sheep, 16 cows, 24 chickens and 6 pigs.
Mary sells 8 of her sheep.
What percentage of her remaining animals are sheep?
Answer: $\qquad$ \%
41. The table shows the highest temperature in Milford each day for a week.
What is the mean of these temperatures?
A $\quad 10{ }^{\circ} \mathrm{C}$
C $\quad 6^{\circ} \mathrm{C}$
E $\quad 7^{\circ} \mathrm{C}$
B $\quad 9^{\circ} \mathrm{C}$
D $\quad 12^{\circ} \mathrm{C}$

| Monday | $12^{\circ} \mathrm{C}$ |
| :---: | :---: |
| Tuesday | $11^{\circ} \mathrm{C}$ |
| Wednesday | $9^{\circ} \mathrm{C}$ |
| Thursday | $10^{\circ} \mathrm{C}$ |
| Friday | $8^{\circ} \mathrm{C}$ |
| Saturday | $7^{\circ} \mathrm{C}$ |
| Sunday | $6^{\circ} \mathrm{C}$ |

42. Five scones cost $£ 2.85$ and three teas cost $£ 1.80$.

What is the total cost of one scone and one tea?
Answer: £ $\qquad$
43. A bucket holds 5 litres of water.

250 ml of water is drained from the bucket every minute.
How many minutes will it take for the bucket to be empty?
Answer: $\qquad$ minutes
44. What is the size of angle $a$ ?

Answer: $\qquad$ -

45. Craig has 4 dogs. He has to buy each dog a collar (c) and six tins $(t)$ of dog food.

Which expression shows how many collars and tins of food he needs to buy?
A $4 t c$
C $4 c+4 t$
E $4+c+t$
B $c+4 t$
D $4(c+6 t)$
46. What are the coordinates of Point Q ?
A $(3,7)$
C $(2,9)$
E $(2,7)$
B $(7,9)$
D $(7,7)$

47. Cliff has a bag of tennis balls. 8 are green, 7 are yellow and 5 are white. He picks a tennis ball at random.

What is the probability that he picks one that is not green?
A $3 / 5$
B $\quad 2 / 10$
C $8 / 20$
D $3 / 4$
E $5 / 8$
48. Jodie works for a bookshop. She is paid $£ 6.50$ an hour plus $5 \%$ of the cost of each book she sells. On Saturday, Jodie worked for 3 hours and sold $£ 220$ worth of books. How much money did Jodie earn?

Answer: £ $\qquad$
49. The cost of travel insurance in pounds ( C ) is worked out using the equation below:

$$
C=10+20(x-1)
$$

$x$ is the number of weeks that a customer is travelling for.
A customer wants travel insurance for 6 weeks.
How much should the customer be charged?
Answer: £ $\qquad$
50. Look at the sequence below:
$\begin{array}{lllll}4 & 9 & 16 & 25 & 36\end{array}$
Which expression could be used to find the $n$th term in this sequence?
A $n^{2}$
C $n^{2}-3$
E $(n+1)^{2}$
B $n^{2}+3$
D $2 n+2$


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