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 A to E.

1. Which of the following is the most likely weight of a bag of flour?
   A 2 g  B 2 litres  C 2000 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  E triangle
   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 from Hart Street?
   Answer: ______:

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 → →
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: ________ 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 47 000   C 100 000   E 47 900
   B 50 000   D 48 000

10. There are 25 CDs in a box. A shop orders 14 boxes.
    How many CDs did the shop order?
    Answer: _________

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: _________ %

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

13. Which of the following statements is correct?
    A $5.2 \times 10 < 52$   C $52 > 520 \div 100$   E $52 \times 10 < 52$
    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: _________  

Carry on to the next question ➔ ➔
15. Ibrahim is trying to work out the volume of a swimming pool.  
What units should he measure the volume in?  
A mm³  B m²  C cm²  D m³  E cm³

16. Sunita has 75 pens and she ties them into bundles of 8.  
How many pens does she have left over?  
Answer: 

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?  

<table>
<thead>
<tr>
<th></th>
<th>factors of 55</th>
<th>factors of 70</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10</td>
<td>1, 5</td>
<td>1, 2, 5, 7</td>
</tr>
<tr>
<td>Prime</td>
<td>5, 11</td>
<td>Prime</td>
</tr>
</tbody>
</table>

19. What is \(\frac{3}{5}\) 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  E 4.5  
B 4.3  D 4.45

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  E brown  
B blue  D amber

22. Which of these calculations gives the largest amount?  
A \(21 \times 20 - 18 + 19\)  C \(20 \times 18 - 19 + 21\)  E \(20 \times 19 - 21 + 18\)  
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?

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>£12.04</td>
<td>C</td>
</tr>
<tr>
<td>B</td>
<td>£12.96</td>
<td>D</td>
</tr>
</tbody>
</table>

Answer: _________

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: _________

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: _________

26. What is the next number in this sequence?

23 35 47 59 ?

Answer: _________

27. $622 \times 110 = 68420$

What is $55 \times 622$?

A | 34210 | B | 11405 | C | 31605 | D | 13704 | E | 34420 |

Answer: _________

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 | 2.34 m | E | 3 m |

Answer: _________

29. The average temperature in May is 18 ºC. 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: _________ ºC

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: _________ cm
31. The diagram shows the plan of Ridzuan’s living room.
What is the area of the living room?
Answer: ________ m²

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: ________ 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 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: ________ °

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: ________ kg

37. A, B and C are three corners of a square.
What are the coordinates of the 4th corner?
Answer: (___ , ___)

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.

Carry on to the next question → →

Sample 11+ Assessment Test — Maths

Downloaded from elevenplusexams.co.uk
39. Both of these cuboids are identical. Each of their square ends has an area of 4 cm² and they are both 15 cm long. What is the total volume of these two cuboids combined?

A  240 cm³  
B  480 cm³  
C  120 cm³  
D  60 cm³  
E  30 cm³

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: _________ %

41. The table shows the highest temperature in Milford each day for a week.

What is the mean of these temperatures?

A  10 °C  
B  9 °C  
C  6 °C  
D  12 °C  
E  7 °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: £ _________

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: _________ minutes

44. What is the size of angle $a$? Answer: _________ °
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 $4tc$  
B $c + 4t$  
C $4c + 4t$  
D $4(c + 6t)$  
E $4 + c + t$

46. What are the coordinates of Point Q?

A $(3, 7)$  
B $(7, 9)$  
C $(2, 9)$  
D $(7, 7)$  
E $(2, 7)$

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 $\frac{3}{5}$  
B $\frac{2}{10}$  
C $\frac{8}{20}$  
D $\frac{3}{4}$  
E $\frac{5}{8}$

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: £ _________

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: £ _________

50. Look at the sequence below:

4   9   16   25   36

Which expression could be used to find the $n$th term in this sequence?

A $n^2$  
B $n^2 + 3$  
C $n^2 - 3$  
D $2n + 2$  
E $(n + 1)^2$