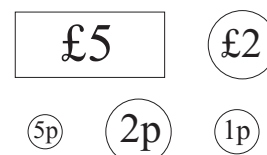# Sample 11+ Assessment Test — Maths

Allow 50 minutes to do this test and 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. James saves the following notes and coins from his pocket money. How much has he saved altogether?

    A £7.80   **C** £78.00   **E** £70.80

    B £7.08   **D** £70.08

2. A train timetable is shown on the right. If Cara catches the first available train after 9:00 am from Chapel Street, what time will she arrive in Lanston?
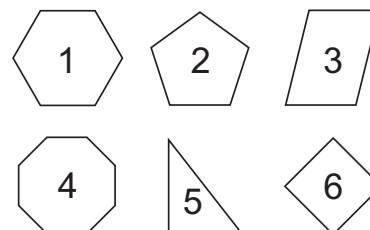
    Answer: _____

Colwyn Gardens	08:50	09:10	09:30
Chapel Street	08:55	09:15	09:35
Bispham	09:06	09:26	09:46
Torsway	09:17	09:37	09:57
Lanston	09:45	10:05	10:25

3. Bethany cuts her birthday cake into eight equal pieces. What fraction of the cake is one piece?

    A $\frac{1}{7}$ **B** $\frac{1}{8}$ **C** $\frac{1}{6}$ **D** $\frac{6}{7}$ **E** $\frac{7}{8}$

4. Which pair of shapes on the right both have at least one right angle?

    A 1 and 2   **C** 1 and 6   **E** 2 and 4
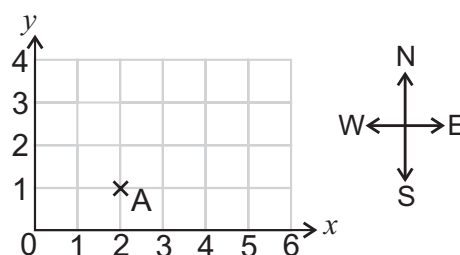
    B 3 and 5   **D** 5 and 6

5. Which of these times is the same as 16:50?

    A Ten to five in the morning   **D** Ten to six in the afternoon

    B Ten to four in the afternoon   **E** Ten to six in the morning

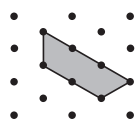   **C** Ten to five in the afternoon

6. Kaye follows a route from point A on the grid. She walks 1 square north then 2 squares east.

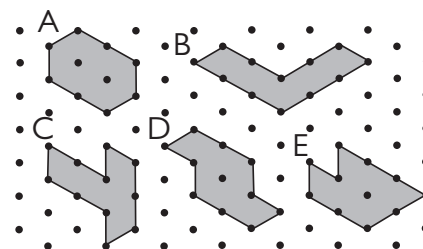   What are the coordinates of the point her route takes her to?

    Answer: (____,____)

7. Robert has two identical trapezium-shaped tiles. One is shown here:

    He arranges the tiles on a triangle dotty grid. Which shape on the right cannot be made without overlapping the tiles?

    Answer: _____

8. What is the missing number in this equation?

    $2808 + 2808 + 2808 = \boxed{} \times 6$ Answer: _____

    (/ 8)

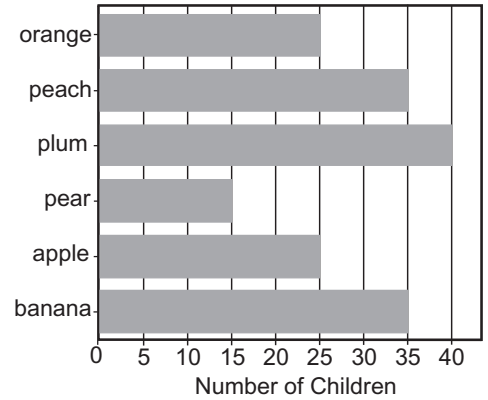**Carry on to the next question → →**

9. A bag of fruit costs 99p.
   How much will 9 bags of fruit cost?

   Answer: £ _____

10. 24 children want to go camping. 5 children can sleep in each tent.
    How many tents do they need?

    Answer: _____

11. Each child in Ella's year group was asked to pick their
    favourite fruit. The results were collected in a bar chart.
    How many more children chose plums than pears?

    A 27   **B** 30   **C** 23   **D** 25   **E** 40

12. What is 10 − 8.93?   Answer: _____

13. Year 5 and Year 6 are split into red, yellow and blue teams.

    The number of points won by each team are shown in the table.
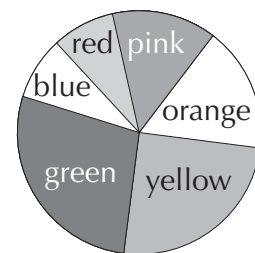   How many points did the blue team win in total?

    Answer: _____

Team	Year 5	Year 6	Total
Red	27	50	77
Yellow	32	25	57
Blue		30	
Total	90	105	

14. What is 45.952 rounded to the nearest tenth?

    A 45.9   **B** 46.0   **C** 45.95   **D** 45.96   **E** 45.10

15. This pie chart shows the colours of the sun hats worn by
    36 children. Estimate the number of children wearing yellow hats.

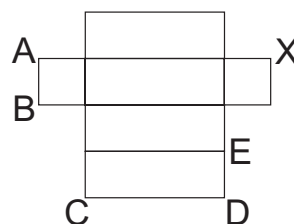   **A** 5   **B** 9   **C** 12   **D** 15   **E** 2

16. Toby has 4.4 litres of lemonade, 0.9 litres of lime juice and
    2.8 litres of orange juice. He mixes them together in a bucket.

    How many litres of liquid is in the bucket?   Answer: _____ l

17. Tara uses this net to make a 3D shape.
    Which corner will touch the corner marked X
    when the net is folded?

    A   **B**   **C**   **D**   **E**

/ 9

Carry on to the next question → →

18. The table shows part of the information written on a tin of fruit. Amrit eats ¾ of the tin of fruit.

    How many grams of carbohydrate did Amrit eat?

    Answer: _____ g

	Per ¼ tin
Protein	0.4 g
Carbohydrate	12.2 g
Fat	0.1 g
Fibre	1.2 g

19. A packet of 6 Milky Bears costs 40p. They are on special offer at 10% off. What is the cost of one milky bear?   Answer: _____ p

20. Sandy collects books. 8 out of every 9 of her books are novels. The rest are science textbooks. Sandy has 24 novels. How many books does she have in total?   Answer: _____ books

21. Which of the following is equal to 24.

    A $48 - 8 \times 3$ **C** 3×7 **E** $2 + 4 \times 4$

    B $3 + 11 \times 2$ **D** $24 \div 2 - 1$

22. Which of the following shapes could only go in the region labelled X?

    A   rhombus   **D**   scalene triangle
    B   kite   **E**   isosceles triangle
    C   regular pentagon

	At least two angles equal	All angles different
At least two sides equal		
All sides different lengths		X

23. Which of the following numbers is not divisible by 4?

    A   324   **B**   116   **C**   288   **D**   132   **E**   138

24. Joel weighs a basket containing 7 peaches, as shown on the right. Each peach weighs 200 g.

    How many kilograms does the basket weigh?

    Answer: _____ kg

    2.300 kg

25. Here are the shoe sizes of the children at a party.
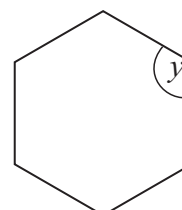
    6 6 4 8 7 5 7 6 5

    What is the mean shoe size?   Answer: _____

26. The shape on the right is a regular hexagon. What size is angle y?

    A   180°   **B**   60°   **C**   120°   **D**   90°   **E**   175°
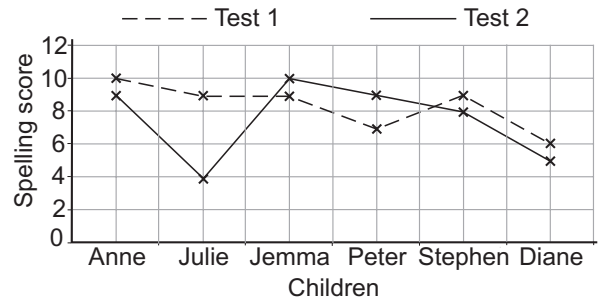
    y

/ 9
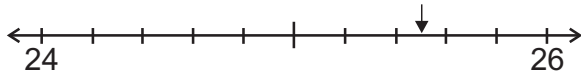
Carry on to the next question → →

27. The graph shows two sets of spelling scores for a group of children.

    What were the scores for the child who had a difference of 2 marks on the tests?

    A 10 and 8   **C** 8 and 6   **E** 6 and 4
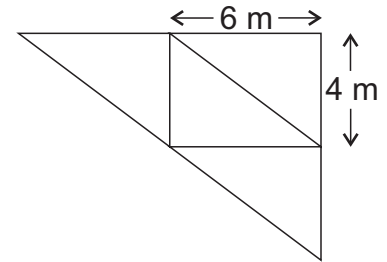   **B** 9 and 7   **D** 7 and 5

28. What number is the arrow pointing to on the number line?

    Answer: _____

29. The playground at Jay's school is made up of four identical right-angled triangles. What is the area of the playground?

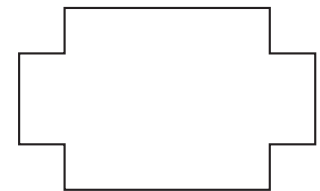   Answer: _____ m²

30. Adam thinks of a number.
    He multiplies it by 8, adds 6 and then divides it by 2.
    He ends up with 131.
    What was the number he started with?   Answer: _____

31. Dee is trying to guess what shape Fran is thinking of.
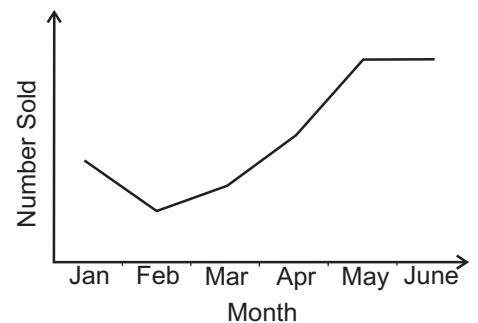   Which of these clues would be incorrect for Fran's shape shown below?

    A   My shape has exactly twelve corners.
    B   My shape has exactly four internal 90° angles.
    C   My shape has exactly eight internal 90° angles.
    D   My shape has twelve sides.
    E   My shape has exactly two lines of symmetry.

32. The graph on the right shows how many of a particular board game have been sold each month over a 6 month period.

    Which of the games below could this be?

	Jan	Feb	Mar	Apr	May	June
Ant Alliance	50	25	10	5	20	45
Bee Bash	45	40	35	30	20	20
Croc Chase	20	10	15	25	40	40
Dodo Detective	30	35	30	35	30	30
Emu Escape	15	20	25	30	40	40

    Answer: _____

    / 6

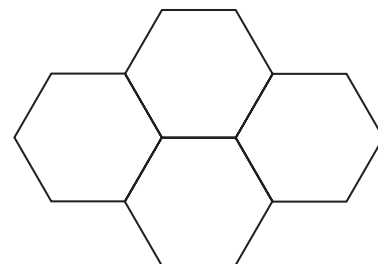**Carry on to the next question → →**

33. Amanda has some pocket money.
    She spends 60% of it and is left with £6.00.

    How much money did she start off with?   Answer: £ _____

34. This honeycomb pattern is made up of regular hexagons.
    The length of each side of the hexagons is 2 cm.

    Calculate the distance around the outer edge of this shape.

                        Answer: _____ cm

35. A tap is dripping water at a rate of 20 ml per minute.

    How long will it take, to the nearest minute, for 1 litre
    of water to be leaked from the tap?

                        Answer: _____ mins

36. On Tuesday the temperature is 1 °C.
    By Wednesday it has dropped to –2 °C.

    The temperature drops by twice as much from Wednesday
    to Thursday. What is the temperature on Thursday?

                        Answer: _____ °C

37. Eve is baking cupcakes using the ingredients on the right.
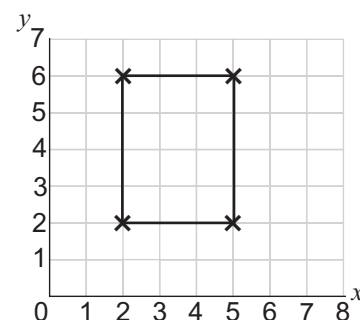
    Eve needs to make exactly 40 cakes.
    How much butter will she need?   Answer: _____ g

    **Cupcakes
    — makes 12**
    150 g flour
    3 eggs
    150 g butter
    150 g sugar

38. The rectangle on the coordinate grid is moved 3 units to the right
    and 2 units down. What are the new coordinates of its corners?

    A   (3, 6), (6, 6), (6, 2), (3, 2)
    B   (6, 3), (6, 6), (2, 6), (2, 3)
    C   (5, 6), (8, 6), (8, 2), (5, 2)
    D   (5, 4), (8, 4), (8, 0), (5, 0)
    E   (4, 5), (4, 8), (0, 8), (0, 5)

39. Ali raised £540 from a sponsored bike ride. She divides it in the ratio 5:4 and donates each amount
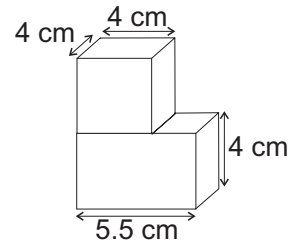   to a different charity. What is the difference between the larger donation and the smaller one?

                        Answer: £ _____

                                                                    / 7

Carry on to the next question → →

40. The picture on the right shows a cube on top of a cuboid.
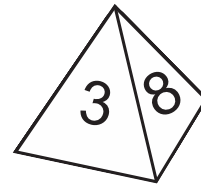   What is the total volume of the shapes?

    Answer: _____ cm^3

41. What is the nth term of this sequence?

    3   8   13   18   23

    A $6n - 3$ **C** $4n - 2$ **E** $5n - 2$
    B $2n + 1$ **D** $5n + 1$

42. A number is written on each face of the triangle-based pyramid
    shown on the right. The mean of the numbers is 4.
    What are the two hidden numbers?

    A 2 and 4   **C** 2 and 5   **E** 1 and 4
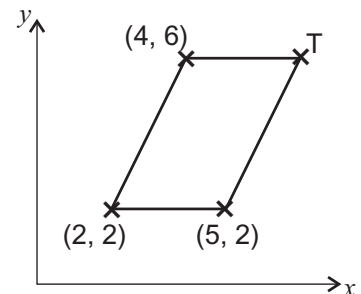   **B** 1 and 2   **D** 1 and 5

43. Bobby's school have been collecting 2p coins for charity.
    They count the coins into £1 piles and decide to check they
    are correct by weighing the piles. Each coin weighs 7.5 g.
    How many grams should each pile weigh?

    Answer: _____ g

44. The diagram shows a parallelogram.
    What are the coordinates of point T?   Answer: (____,____)

45. Kate starts out on a 135 km journey at 8:50 am.
    She travels on average at 60 km per hour.

    What time does she arrive at her destination?   Answer: _____
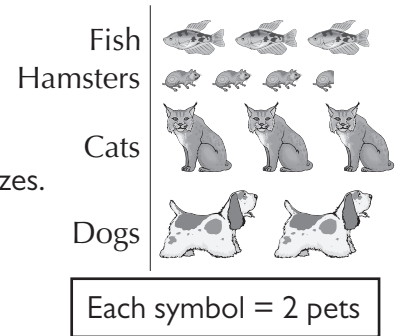
46. Jane works for a shoe shop and is given a discount card.
    Jane uses her card to buy a pair of trainers for £24.75.
    The trainers originally cost £27.50.

    What discount does she receive?

    A 2%   **C** 10%   **E** 25%
    B 5%   **D** 20%

/ 7

Carry on to the next question → →

47. The pictogram shows the types of pets owned by children in Year 6. Why is this pictogram misleading?

Fish
Hamsters
Cats
Dogs

Each symbol = 2 pets

A The pictures only show one breed of each animal.
B You cannot have half a fish or half a hamster as a pet.
C The symbols that represent the different animals are different sizes.
D There are no rabbits shown on the pictogram.
E Children in other year groups may own different pets.

Answer: _____

48. A shop has an offer on greetings cards. You can buy 3 boxes of 20 cards for the price of 2. A box costs £3.90.
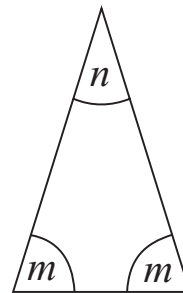
Bella buys 6 boxes in the offer. She also buys a box of 12 cards for £1.80. How much does she spend in total?

Answer: £ _____

49. Use the formula below to find the size of angle m if $n = 46°$.

$$m = (180 - n) \div 2.$$

Answer: _____ °

50. A repair engineer charges a customer £50 for every job and £25 for every hour that he works. Which formula could you use to find how much he charges, C, for h hours of work?

A $C = 50 \div 25h$ C $C = 50h - 25$ E $C = 50 \times h$
B $C = 50 + 25h$ D $C = 25 + 50h$

/ 4

Total   / 50

End of Test