

# Assessment Test 3

Allow 60 minutes to do this test. Work as quickly and as carefully as you can.

You can print **multiple-choice answer sheets** for these questions from our website — go to [cgpbooks.co.uk/11plus/answer-sheets](http://cgpbooks.co.uk/11plus/answer-sheets) or scan the QR code on the right. 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. What number is exactly halfway between 4.275 and 4.419?

Answer: \_\_\_\_\_

2. What is the size of angle  $k$  in the parallelogram shown on the right?

Answer: \_\_\_\_\_°



3. How many of the common factors of 28 and 42 are prime?

**A** 1

**B** 2

**C** 3

**D** 4

**E** 5

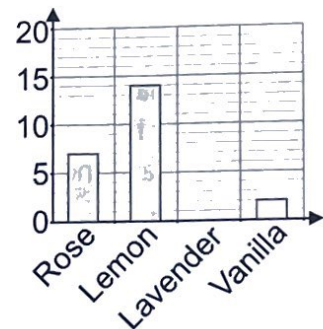
4. Some prices at a restaurant are shown on the right. Kamilah orders lasagne, two portions of garlic bread and a soft drink. How much does she spend in total?

Answer: £ \_\_\_\_\_

Menu	
Pizza	£5.50
Lasagne	£8.85
Garlic bread	£2.30
Soft drink	£1.70

5. Andy counts the number of scented candles of different scents in a shop. The results are shown in this bar chart. The bar for lavender is missing, but there were twice as many lavender candles as rose and vanilla combined. How many scented candles were in the shop in total?

Answer: \_\_\_\_\_



6. Alan has a 25 kg sack of potatoes. He uses 7.86 kg of them to make chips and 13.79 kg to make mashed potatoes. How many kilograms of potatoes are left in the sack?

Answer: \_\_\_\_\_ kg

7. Emile and Samira share a packet of mints. Emile eats  $\frac{3}{8}$  of the packet and Samira eats  $\frac{5}{12}$ . The packet originally contained 48 mints. How many mints are left over?

Answer: \_\_\_\_\_

8. Colin is packing 171 DVDs into boxes. Each box can hold 14 DVDs. How many DVDs will be left over once he has filled as many boxes as possible?

**A** 7

**B** 11

**C** 9

**D** 3

**E** 5

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Carry on to the next question → →

9. Every pupil from Classes A and B takes part in one after-school club. The number of pupils in each club is shown in the table on the right. How many pupils are there in Class B?

	Class A	Class B	Total
Choir	5		16
Football	14		
Art		3	9
Total			46

Answer: \_\_\_\_\_

10. Rhea needs to buy 8147 name tags for an event. The name tags come in packs of 36. How many packs does she need?

Answer: \_\_\_\_\_

11. Part of a timetable for a dance school is shown on the right. Each class starts immediately after the previous one ends. Laura arrives 10 minutes before her ballet class and waits at the dance school for her modern class to start. She goes home 15 minutes after her modern class ends. How long in total does she spend at the dance school?

Class	Start time
Tap	09:00
Ballet	10:05
Ballroom	11:45
Modern	13:10
Jazz	13:55

- A** 4 hours 5 minutes      **D** 4 hours 25 minutes  
**B** 3 hours 50 minutes    **E** 4 hours 15 minutes  
**C** 4 hours

12. What is  $217 \times 45 + 183 \times 45$ ?

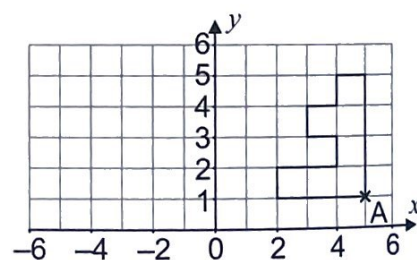
Answer: \_\_\_\_\_

13. Hamza has a 1.45 m long piece of string. He cuts off a 39 cm piece and a 74 cm piece, then cuts the remaining string into five equal pieces. How long is each of these five pieces in millimetres?

Answer: \_\_\_\_\_ mm

14. The shape on the right is reflected in a vertical mirror line that crosses the  $x$ -axis at  $(2, 0)$ . What are the new coordinates of point A?

- A**  $(-5, 1)$       **C**  $(-1, 1)$       **E**  $(-1, 0)$   
**B**  $(-5, -1)$     **D**  $(-2, 1)$



15. The cost in pounds,  $C$ , of a room in a hotel for  $n$  nights is given by the formula  $C = 52n + 30$ . How much would it cost for a room in the hotel for 4 nights?

Answer: £ \_\_\_\_\_

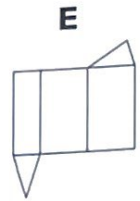
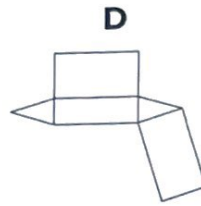
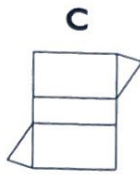
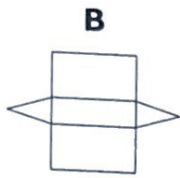
16. The answers to the following calculations are put in order from smallest to largest. Which calculation would be in the middle?

- A**  $380 \times 7.1$       **C**  $0.38 \times 71\ 000$       **E**  $380 \times 710$   
**B**  $3.8 \times 71$       **D**  $38 \times 0.71$

17. Rei has 84 toy vehicles. 3 in every 7 are cars, 17 of them are vans and the rest are buses. How many toy buses does she have?

Answer: \_\_\_\_\_

18. Which of the following nets doesn't fold up to make a triangular prism?

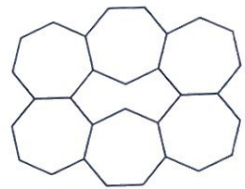


19. An obstacle course has three stages. Kim takes 2 minutes 53 seconds to complete stage 1, 132 seconds to complete stage 2 and 3 minutes 46 seconds to complete stage 3. How long does it take her to complete the whole obstacle course?

**A** 7 minutes 31 seconds    **C** 7 minutes 51 seconds    **E** 9 minutes 21 seconds  
**B** 8 minutes 51 seconds    **D** 8 minutes 46 seconds

20. The shape on the right is made out of identical regular heptagons. The perimeter of each heptagon is 56 cm. What is the perimeter of the outside of the shape?

Answer: \_\_\_\_\_ cm



21. Amir thinks of a number. It is 14 more than a cube number, and 8 less than a square number. What number is Amir thinking of?

**A** 30    **B** 22    **C** 56    **D** 9    **E** 41

22. Which of the following gives the answer 360?

**A**  $17^2 - 71$     **B**  $71 + 17^2$     **C**  $17^2 \div 71$     **D**  $17^2 \times 17$     **E**  $71 - 17^2$

23. The price of a tin of baked beans at five different shops is shown below:

£1.05, 66p, 47p, £1.28, 34p

What is the mean price of a tin of baked beans in pence? Answer: \_\_\_\_\_ p

24. 15 g of gravy granules is enough to make 300 ml of gravy. How many litres of gravy could be made with 0.9 kg of gravy granules?

Answer: \_\_\_\_\_ litres

25. A shop sells balloons in packs of 10 for £3 or in boxes of 250. A box is 15% cheaper than buying the same amount of balloons in packs. How much does a box of balloons cost?

Answer: £ \_\_\_\_\_

26.  $327 \times 17 = 5559$  What is  $981 \times 34$ ?

Answer: \_\_\_\_\_

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Carry on to the next question → →

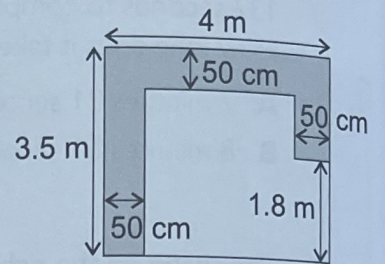
27. Fionn makes a sequence by doubling the previous term and adding 5. The first number in his sequence is 4. What is the first number in the sequence that is greater than 100?  
**A** 112      **B** 139      **C** 101      **D** 128      **E** 153

28. Louis makes 120 cheese and potato pies to sell at a football game. It costs him £1.50 to make each pie. He sells them all at the same price and makes £300 profit. How much did he sell each pie for?

Answer: £ \_\_\_\_\_

29. The plan of Jasminder's kitchen is shown on the right. The grey region is her kitchen counter. What is the total area of the kitchen counter in m<sup>2</sup>?

Answer: \_\_\_\_\_ m<sup>2</sup>

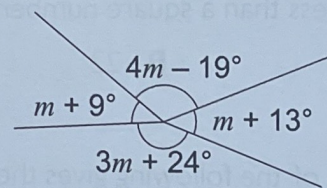


30. Imani went for a run each day from Monday to Thursday. The mean distance she ran over these four days was 12.1 km. After she went for a run on Friday, her new mean distance was 11.3 km. How far did Imani run on Friday?

Answer: \_\_\_\_\_ km

31. Look at the diagram on the right. What is the value of  $m$ ?

Answer: \_\_\_\_\_ °

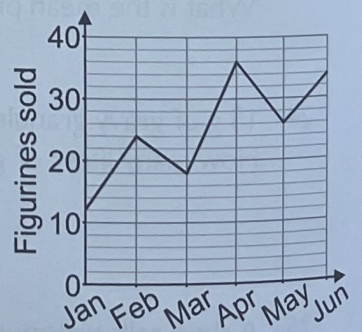


32. The first four terms of a sequence are 5, 8, 11 and 14. What is the  $n$ th term of this sequence?

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

33. This line graph shows how many figurines Pavan sold in the first six months of the year. What fraction of her total sales were between January and March?

- A**  $\frac{17}{50}$       **C**  $\frac{9}{25}$       **E**  $\frac{23}{50}$   
**B**  $\frac{9}{20}$       **D**  $\frac{12}{25}$

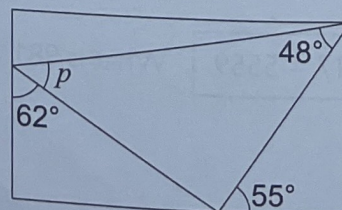


34. A group of seven friends go to the cinema. They each buy a ticket for £6.80 and a small popcorn. The total cost is £65.03. How much does one small popcorn cost?

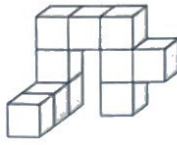
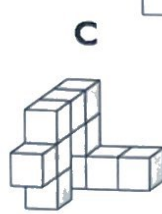
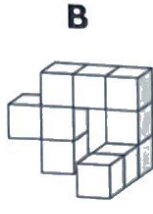
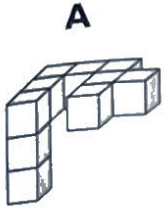
Answer: £ \_\_\_\_\_

35. This diagram shows a triangle inside a rectangle. What is the size of angle  $p$ ?

Answer: \_\_\_\_\_ °



36. Which of the shapes below is the same as the shape on the right?



37. How many degrees does the minute hand on a clock move through between 11:45 am and 3:05 pm on the same day?

Answer: \_\_\_\_\_°

38. Each week, Sally saves £5.20 more than she did the previous week. In week 6, she saves £32. How much did she save in the first week?

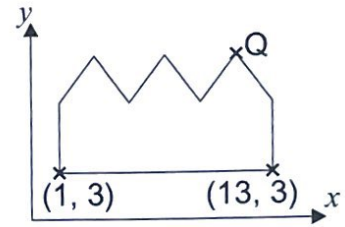
Answer: £ \_\_\_\_\_

39. Jimmy fills a bucket with water. He pours  $\frac{11}{20}$  of the water on his plants, then spills  $\frac{2}{3}$  of what is left. What percentage of the original amount of water is still in the bucket?

**A** 15%      **B** 35%      **C** 30%      **D** 12%      **E** 8%

40. The shape shown on the right is made from a rectangle and 3 identical isosceles triangles. What is the  $x$ -coordinate of  $Q$ ?

Answer: \_\_\_\_\_

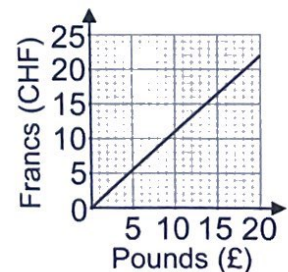
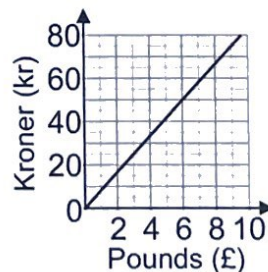


41. A pallet holds identical bricks that have a total mass of 1260 kg. A builder uses 142 bricks from the pallet to build a wall. The mass of the bricks left on the pallet is 834 kg. How many bricks were on the pallet originally?

Answer: \_\_\_\_\_

42. The line graphs on the right show the conversion between British pounds and Danish kroner, and the conversion between British pounds and Swiss francs. Approximately how many Swiss francs are 100 Danish kroner worth?

**A** CHF 42      **C** CHF 7      **E** CHF 21  
**B** CHF 80      **D** CHF 13



43. The formula  $C = 0.5g + 3.5r + 6$  is used to find the cost  $C$  (in £) of playing  $g$  games and going on  $r$  rides at a funfair. Roman played 3 games and spent £25 in total. How many rides did he go on at the funfair?

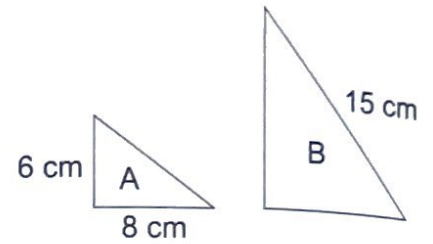
Answer: \_\_\_\_\_

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Carry on to the next question → →

44. The two triangles shown on the right are similar.  
The perimeter of triangle A is 24 cm.  
What is the area of triangle B?

Answer: \_\_\_\_\_ cm<sup>2</sup>

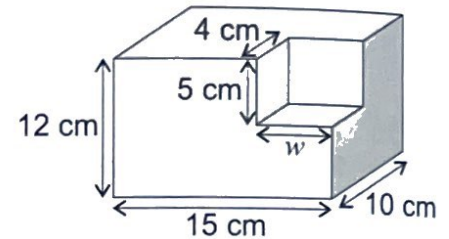


45. A board game uses red, blue and green counters. There are 4 times as many blue counters as there are red counters, and for every 2 blue counters there are 5 green counters.  
What is the ratio of red to blue to green counters in the board game?

**A** 1:4:5      **B** 1:2:5      **C** 1:4:10      **D** 2:4:10      **E** 2:4:5

46. The shape shown on the right is made by removing a small cuboid from a larger cuboid.  
The shape has a total volume of 1680 cm<sup>3</sup>.  
What is the value of  $w$ ?

Answer: \_\_\_\_\_ cm

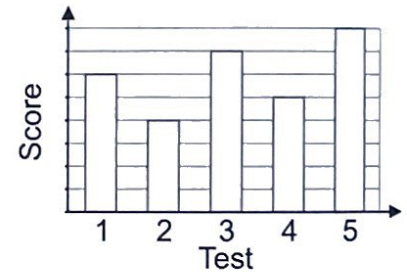


47. The height of a triangle is 4 times the length of the base of the triangle.  
The area of the triangle is 32 cm<sup>2</sup>. How long is the base of the triangle?

Answer: \_\_\_\_\_ cm

48. This bar chart shows Greg's scores in five spelling tests, but the labels are missing from the vertical axis.  
Greg's mean score across the five tests was 12.  
What score did he get in Test 2?

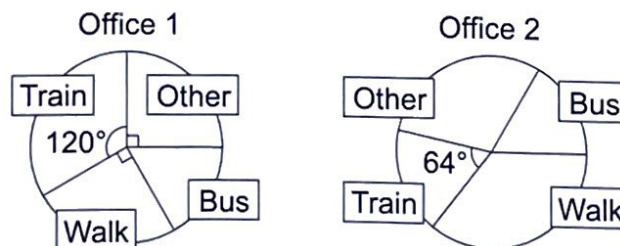
Answer: \_\_\_\_\_



49. Maisie sold a family heirloom at an antiques fair. The antiques fair took 10% of the sale price of the item as a selling fee. She shared the remaining money after the fee between herself, her sister and her brother in the ratio 3:1:2.  
Her brother got £60. How much did the heirloom sell for?

**A** £180      **B** £150      **C** £172      **D** £200      **E** £162

50. The pie charts below show how people in two different offices travel to work.



- 12 people in Office 1 walk to work. The same number of people in each office travel by train. How many people are there in Office 2?

Answer: \_\_\_\_\_

17

End of Test