

Assessment Test 4

Allow 10 minutes to do Section A and 25 minutes to do Section B.
Work as quickly and as carefully as you can.

You can print **multiple-choice answer sheets** for these questions from our website — go to www.cgplearning.co.uk/11+. If you'd prefer to answer them in write-in format, either write your answers in the spaces provided or circle the **correct answer** from the options given.

Section A — Quick Maths

You have **10 minutes** to complete this section.
There are **30 questions** in this section.

1. What is the value of the 7 in 7 230 000?

A seven hundred million C seventy thousand E seven million
B seven hundred thousand D seventy million

2. Which of the following is most likely to be the height of a fully grown tree?

A 12 metres C 1.2 centimetres E 0.12 metres
B 12 millimetres D 0.12 centimetres

3. Tallulah has drawn a trapezium.

She reflects her shape in the dotted mirror line shown to make a new shape.
What type of shape does she form?

A pentagon C heptagon E quadrilateral
B octagon D hexagon



4. Courtney records the temperature each day for five days.

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Temperature	-2°C	1°C	0°C	2°C	-1°C

On which day does she record the lowest temperature?

A Monday B Tuesday C Wednesday D Thursday E Friday

5. Ted's favourite TV programme is shown in the evening.
It starts and finishes at the times shown on the clocks.

How long does the programme last for?

hour(s) minutes

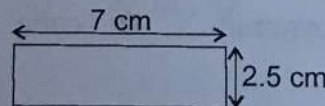


Start



Finish

6. Maxie draws this rectangle in her maths book.
What is the area of the rectangle?



cm^2

7. Which of these numbers is smallest?

A 0.81 B 1.92 C 12.4 D 21.42 E 0.18

8. A regular heptagon has a perimeter of 56 cm.
How long is each side?

cm

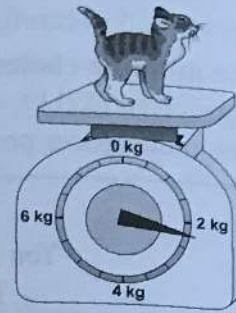
Carry on to the next question → →

9. Kate buys a second-hand car for £3,080.
The original cost of the car was £6,999.
By how much has the car's value decreased?

£

10. How much does the kitten on the right weigh?

A 2.5 kg C 2.25 kg E 2.125 kg
B 2.05 kg D 0.5 kg



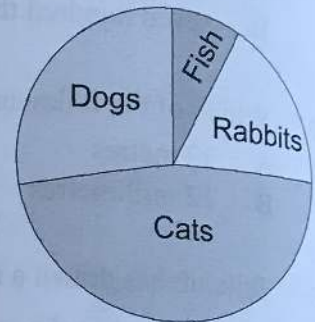
11. Joe eats three loaves of bread on a seven day holiday.
He eats the same amount of bread each day.
What fraction of a loaf does he eat each day of the holiday?

A $\frac{1}{7}$ B $\frac{3}{7}$ C $\frac{1}{4}$ D $\frac{4}{7}$ E $\frac{1}{3}$

12. This pie chart shows the pets belonging to the children in Sue's class.
The total number of pets in the survey is 32.

Which of the following is the best estimate for the number of dogs owned by the class?

A 8 B 15 C 18 D 6 E 9



13. Li estimates the answer to 39×43 by rounding both numbers to the nearest 10 before multiplying them. What answer should he get?

A 1500 B 1600 C 1200 D 2000 E 1677

14. Lucas lives in Kneesall.
He needs to be at Rippen by 8:40 am to go on a trip.

The timetable shows the bus times.

Bus depot	8:00 am	8:05 am	8:10 am	8:15 am	8:20 am
Kneesall	8:10 am	8:15 am	8:20 am	8:25 am	8:30 am
Rippen	8:15 am	8:20 am	8:25 am	8:30 am	8:35 am
Hathern	8:29 am	8:34 am	8:39 am	8:44 am	8:49 am

What is the latest time he can catch a bus?

: am

15. Gus has a piece of ribbon that is 48 m long.
He cuts it into pieces that are each $\frac{1}{3}$ m long.
How many pieces are there?

16. Rashid is thinking of a 3D shape. The shape has 4 faces, 4 vertices and 6 edges.
Which of the following could Rashid's shape be?

A square-based pyramid C triangular prism E cylinder
B triangular-based pyramid D cube

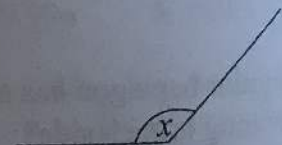
17. $30 \times 806 = 24\,180$

What is 30×403 ?

A 1209 B 12 900 C 48 360 D 4836 E 12 090

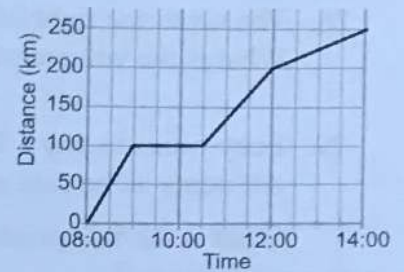
18. Which of these is the best estimate for the size of angle x ?

A 100° B 90° C 80° D 135° E 180°



Carry on to the next question →

19. Jonathan's family go on a journey which is shown on this graph. The family stops for a break. How long does the break last for?
- A $1\frac{1}{2}$ hours B 1 hour C $\frac{3}{4}$ hour D $\frac{1}{2}$ hour E $1\frac{3}{4}$ hours

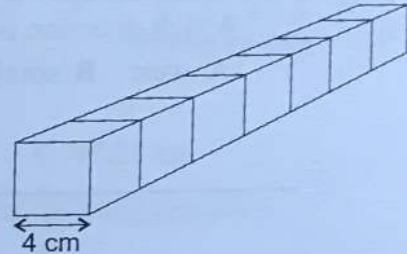


20. Class 7 have made 250 biscuits to sell at the school fair. They pack them in bags of 12.
- How many biscuits are left over?

21. Mark takes seven 4 cm cubes and places them end to end to make this shape.

He then puts the shape on a piece of paper, and draws around it with a pencil.

What is the perimeter of the shape that he draws?

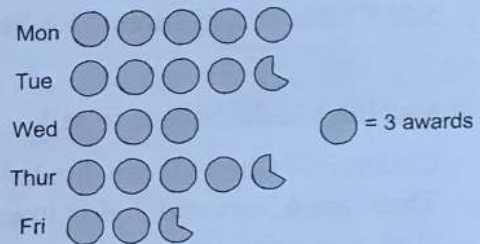


22. A bag contains 5 cherry sweets and 10 lime sweets. What fraction of the sweets are cherry sweets?

A $\frac{5}{10}$ B $\frac{10}{15}$ C $\frac{1}{3}$ D $\frac{1}{2}$ E $\frac{3}{4}$

23. The pictogram shows the number of awards Class 7 gained each day in a week.

What was the greatest number of awards gained by Class 7 on a single day?



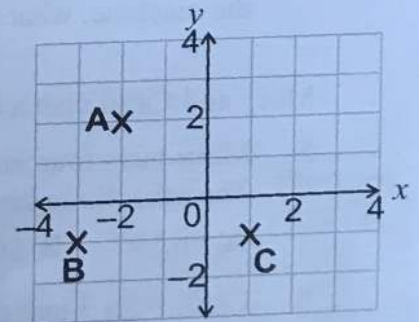
24. A bag contains some striped and spotted balls. The pattern on the balls is either red or yellow. The sorting diagram shows how many of each ball there are. Which balls make up 55% of the total balls in the bag?

	spotted	striped
yellow	6	3
red	4	7

A red balls C striped balls E red striped balls
B yellow balls D spotted balls

25. Bilal is drawing a parallelogram on a coordinate grid. Points A, B and C are three of the corners of the parallelogram. Which of these could be the coordinates of the fourth corner of the parallelogram?

A (2, 2) B (4, 2) C (1, 2) D (3, 2) E (2, 3)



26. $x^2 - 1 > 49$

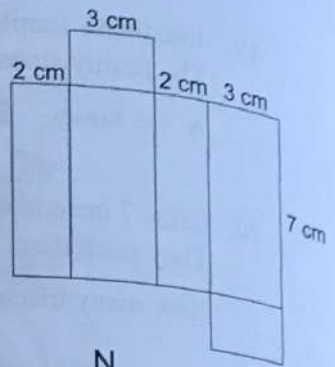
If x is a positive whole number, what is the smallest it could be?

27. Which expression can be used to work out the n th term of this series?

-1 1 3 5 7
A $3n$ B $n-3$ C $2n-3$ D $2 \div n-3$ E $2n+3$

Carry on to the next question → →

28. The net to the right folds up to form a 3-dimensional shape.
What is the volume of this shape? cm^3



29. Lucy wants to buy a T-shirt in a sale.
All items in the sale are reduced by 60%.
What is the sale price of the T-shirt if the original price was £ n ?
A $n \div 60$ B $\frac{2}{5}(n)$ C $n - 60$ D $\frac{3}{5}(n)$ E $2n - 6$

30. Oscar faces north and then turns through 225° in a clockwise direction.
Which direction is he now facing?
A west B south-west C south-east D south E east



/ 30

Section B — Long Maths

You have **25 minutes** to complete this section.
There are **30 questions** in this section.

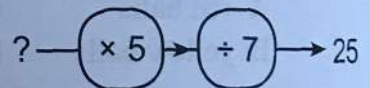
1. Look at the volumes shown below. What is the total volume when they are added together?

5.555 litres 5.55 litres 5.5 litres 5.0 litres 0.5 litres litres

A school buys some badges to sell.

2. Children in Class 1B are divided into groups to sell the badges.
There are 4 boys and 3 girls in each group. There are 15 girls in Class 1B.
How many children are there in the class?
3. The school pays 70p for each badge and sells them for £1 each.
The school sells all the badges, and makes a profit of £60.
How many badges did the school buy?

4. Look at the function machine on the right.
If the number 25 comes out of the machine, what number went in?



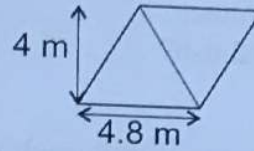
Macy and Carol visit a bakery.

5. Macy buys four sandwiches. One of the sandwiches costs £1.99.
The other three sandwiches cost £1.49 each. What is the total cost of the sandwiches?
A £6.59 B £6.46 C £5.56 D £5.64 E £6.54
6. Carol buys 3 jam donuts and two sausage rolls.
Each sausage roll costs 92p. She spends £3.79.
How much does one jam donut cost? p
7. Carol also wants to buy some cakes. Which of the following is the cheapest price per cake?
A 15p each B 3 for 39p C 10 for £1 D 25 for £2 E 15 for £1.50
8. Find the sum of all the square numbers between 46 and 91.

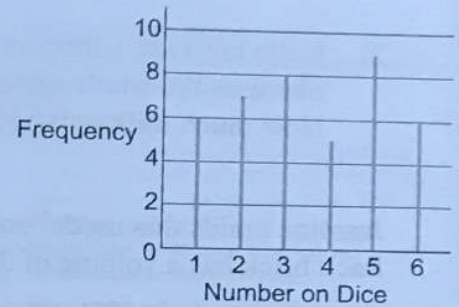
Carry on to the next question \rightarrow

9. The diagram shows a patio made from two identical triangular slabs. What is the area of the patio?

A 3.84 m^2 C 9.6 m^2 E 192 m^2
 B 19.2 m^2 D 38.4 m^2



10. The frequency chart shows the results of throwing a dice. How many times was the dice thrown altogether?



A dog eats 245 g of dried food per meal. She has 3 meals per day.

11. How much food does the dog eat in a week?
 A 0.4725 kg B 5.145 kg C 3.375 kg D 1.575 kg E 47.25 kg
12. The dog's owner buys the food in 1.25 kg bags. How many full meals does one bag provide?
 A 3 B 4 C 5 D 10 E 12

The table shows the opening times of Mr Jason's café. The cost of running the café is £10 per hour and the café is open 7 days a week.

13. How much more per week does it cost to run the café in the summer than in the winter?

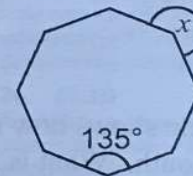
£

	Opens	Closes
Mar – Sep	9 am	6 pm
Oct – Feb	11 am	4 pm

14. Mr Jason surveys 550 visitors to his café about their eating habits. He finds that 4% of the visitors are vegetarian. What number of the visitors are vegetarian?

15. The diagram shows a regular octagon. What size is angle x ?

°



16. A caterer is making a sauce. She uses 4.5 kg of apples for every 2 kg of sugar. How many kilograms of apples will she need if she uses 9 kg of sugar?
 A 4 kg B 202.5 kg C 2.025 kg D 0.25 kg E 20.25 kg

This chart shows the masses of some bags of fruit on sale in a supermarket. Kai buys 1 bag of oranges, 2 bags of bananas, 3 bags of apples and 1 bag of pears.

17. How many kilograms of fruit has he bought?

kg

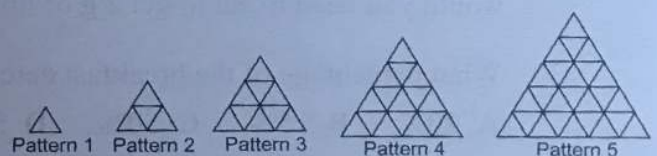
18. Altogether Kai gets 8 bananas. What is the mean mass of one banana?

g

Fruit	Mass per bag (g)
Oranges	600
Bananas	450
Apples	500
Pears	750

19. Simon is investigating patterns made from triangles. Which expression represents the number of small triangles in the n th pattern in the series?

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



Carry on to the next question → →

20. Adam starts watching a film at 10:45 am.
The film lasts for 136 minutes.
What time does the film finish?

: pm

21. Katie buys six 1 litre cartons of milk each week. She drinks 350 ml of milk twice a day.
She uses the whole carton before she opens a new one.
How much milk will be left over after 7 days?

ml

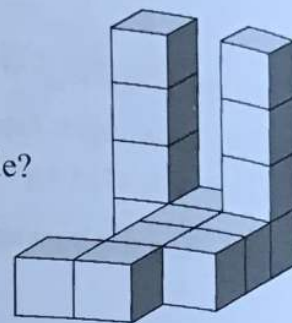
Jasmine builds this model on a table.
Each brick has a volume of 3 cm^3 .

22. What is the total volume of the model?

cm^3

23. What fraction of the number of blocks in the model are not touching the table?

A $\frac{1}{3}$ B $\frac{3}{4}$ C $\frac{2}{5}$ D $\frac{5}{7}$ E $\frac{3}{5}$



24. Jack is cooking a turkey that weighs 2.2 kg. To work out how many minutes he needs to cook it for he is using the formula $20w + 70$.
 w is the weight of the turkey in kg.

How long does Jack need to cook his turkey for?

minutes

25. Roddy is playing a computer game.

The time taken to complete each level is shown in the table.

The mean time it takes him to complete each level is 42 minutes.

How long did it take him to complete level 4?

Level	1	2	3	4	5
Minutes	31	36	44		52

minutes

26. The table shows how much money Ahmed saves each month. What is Ahmed's mean monthly saving for these 6 months?

£ .

January	£1.20
February	80p
March	£1.50
April	£1.10
May	£1.50
June	50p

27. Roger wants to spread grass seed on a rectangular area of soil.
A tub of seed costs £5.99 and covers 12 square metres of soil.

How much will the seed cost altogether if Roger's area of soil measures 8 metres by 6 metres?

£ .

Look at the information on the right for a breakfast cereal.

28. How much carbohydrate would be in a 20 gram serving of cereal?

g

29. How many grams of the breakfast cereal would you need to eat to get 2 g of fibre?

g

A 30 gram serving contains:

Protein	4 g
Carbohydrate	21 g
Fat	1.5 g
Fibre	0.8 g
Salt	0.5 g

30. What percentage of the breakfast cereal is fat?

A 20% B 15% C 50% D 5% E 0.5% F 0.2% G 1.5%