National Curriculum Tests

Key Stage 1

Mathematics

Paper 2: Reasoning

First Name	
Middle Name	
Last Name	
Date of Birth	Day	Month	Year
School Name	

Published December 2016

Cambridgeshire County Council

Cambs Maths Team

Instructions

You **may not** use a calculator to answer any questions in this test.
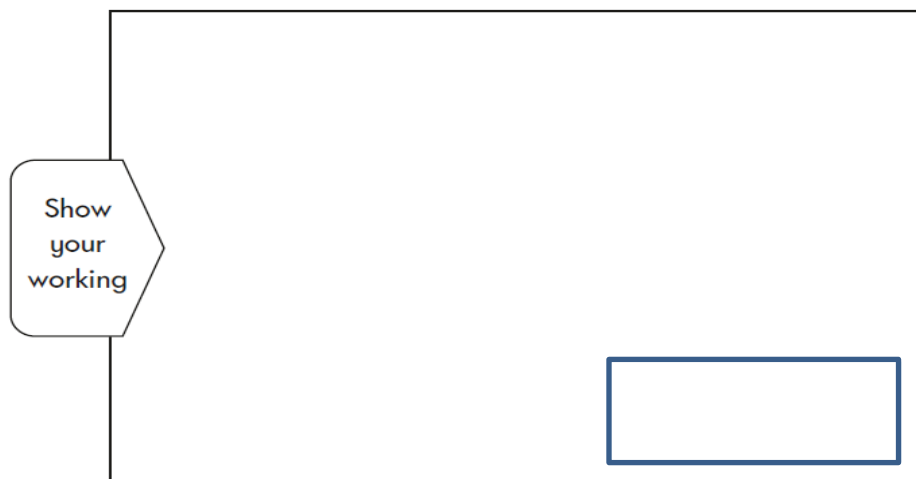
Questions and answers

You have **40 minutes** to complete the test.

Follow the instructions for each question.

Work as quickly and as carefully as you can.

If you need to do working out, you can use the space around the question.

Some questions have a method box like this:

Show
your
working

For these questions you may get a mark for showing your method.

If you cannot do one of the questions, **go on to the next one.**
You can come back to it later, if you have time.

If you finish before the end, **go back and check your work.**

Marks

The number under each line at the side of the pages tells you the maximum number of marks for each question.

Cambs Maths Team

Laura   Manjit

Ann   Kelly   Bob   Jack

Practice Question

dots

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1.

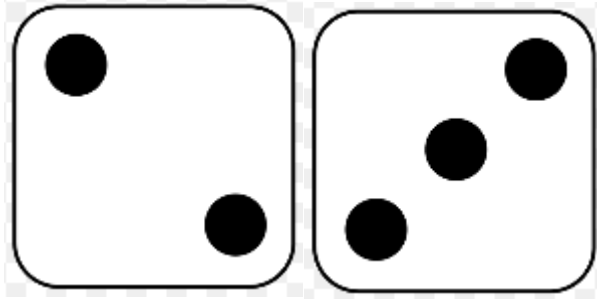10   10   1

          10   1   1

                    10   1

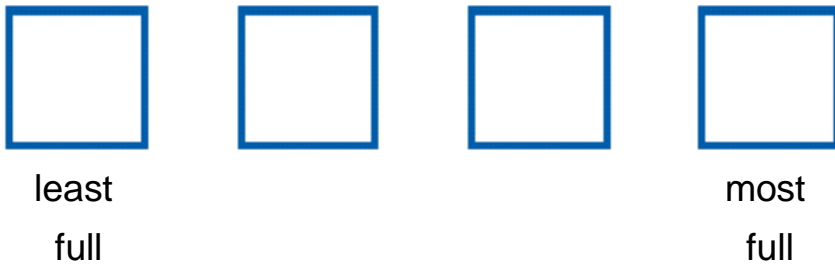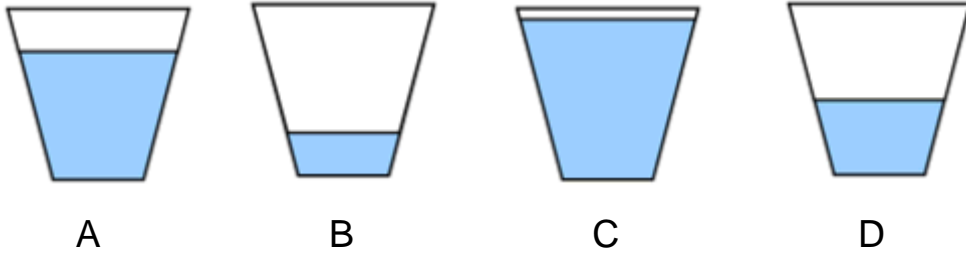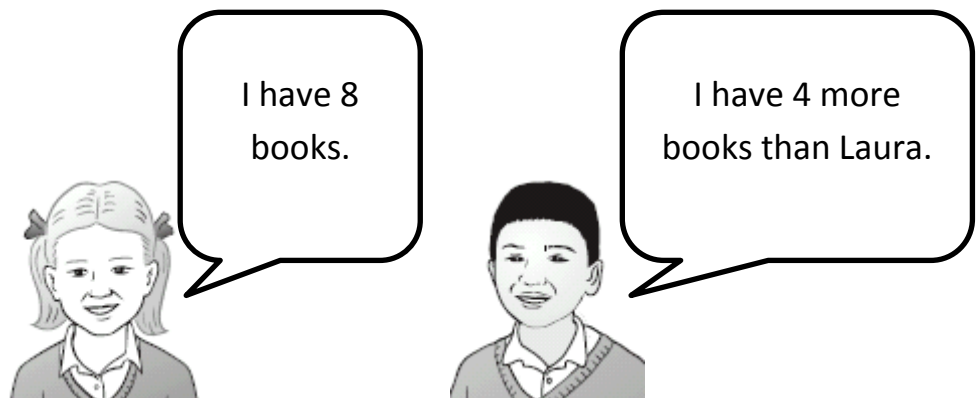   10   10   1

                    10   1   1

_____

1 mark

2.

┌─────────────────────┐
│   │
│   children │
│   │
└─────────────────────┘

_____

1 mark

3.

┌──────────────┐   ┌──────────────┐
│   │   │   │
│   │   │   │
└──────────────┘   └──────────────┘

_____

1   mark

4.   40   6

_____

1 mark

5.   30   40

_____

1 mark

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6. Sort the cups from **least full** to **most full**

A   B   C   D

least full			most full

_____

1 mark

7.

I have 8 books.

I have 4 more books than Laura.

Laura   Manjit

How many books does Manjit have?

books

_____

1 mark

8. Match each coin to the correct box. One has been done for you.

Less than		More than

_____

1 mark

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9. On these cards, the words should match the number.

One of these cards is wrong.

Draw a cross on the card that is wrong.

19

nineteen

71

seventy one

39

thirty nine

17

seventy

_____

1 mark

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10. Bob makes a tally chart of his toys.

Toys in my box	Tally
	I
	⳾⳾⳾⳾ I
	II
	III

Tick one box that shows all of Bob's toys.

_____

1   mark

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11. There are 20 birds.

6 birds fly away.

How many birds are left?

[ ] birds

_____

1 mark

12. Tick the **two** sentences that are correct.

Tick **two.**

A triangle has three sides   [ ]

A triangle can have lines of symmetry.   [ ]

A triangle has curved sides.   [ ]

A triangle has four sides.   [ ]

_____

1 mark

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13. Write two numbers to make this calculation correct.

$$\boxed{} \ + \ \boxed{} \ = \ 18$$

_____

1 mark

Now write three numbers to make this calculation correct.

$$\boxed{} \ + \ \boxed{} \ + \ \boxed{} \ = \ 18$$

_____

1 mark

14. Manjit has some toy trains.

He gives half of them to Bob.

He has five toy trains left.
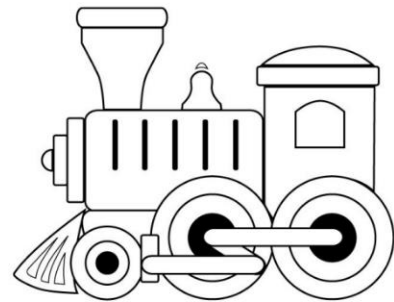
How many toy trains did Manjit start with?

| trains |

_____

1 mark

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15. Kelly has these coins in her purse.

How much money does she have?

$$\boxed{ \text{p}}$$

_____

1mark

16. Write the correct number in each box.

_____

2 marks

17.

A   B   C

D   E   F
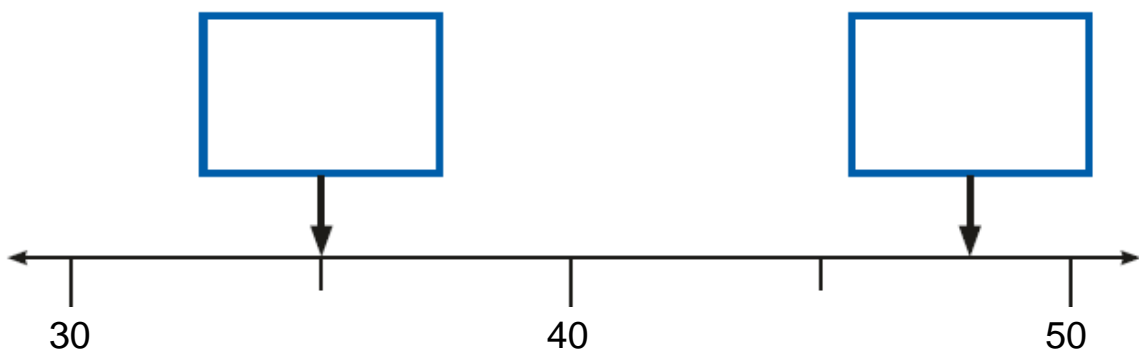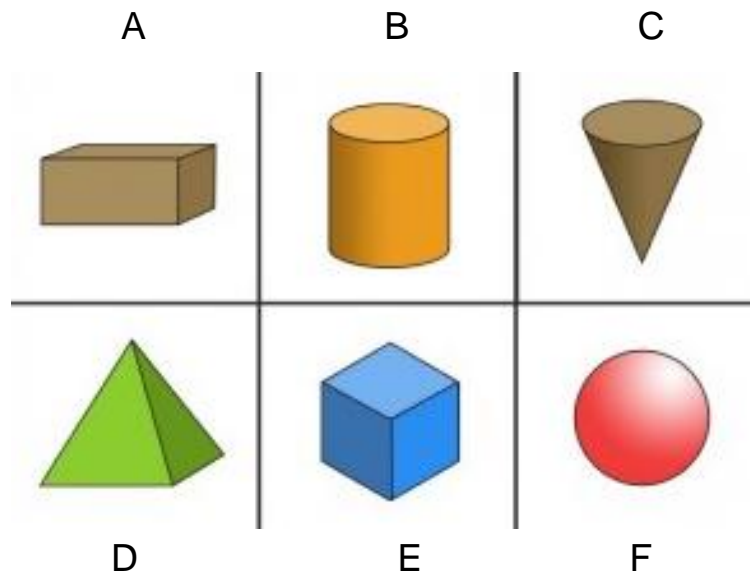
Which shape has exactly **5** faces?

Write the letter.

_____

1mark

18.

10 pencils

5 pencils

20 pencils

5 pencils

10 pencils
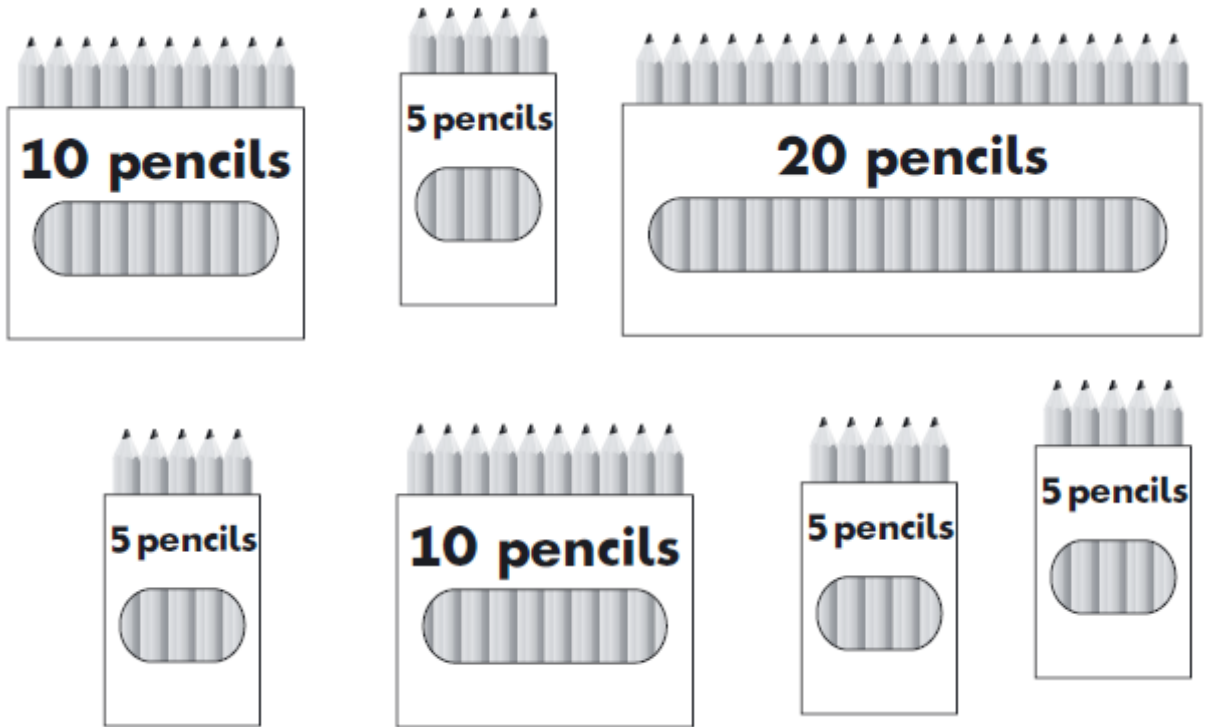
5 pencils

5 pencils

Manjit and Bob share these pencils equally.

How many pencils do they each get?

pencils

1 mark

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19. Miss Brown needs **30** pears for her class.

There are **5** pears in each bag.

How many **bags** of pears does Miss Brown need altogether?
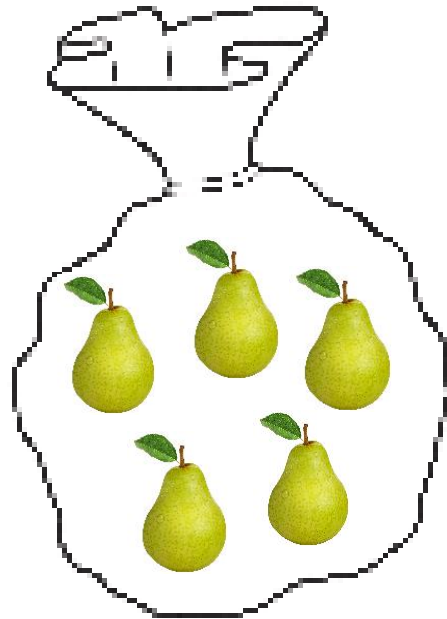
Show your working

_____

1 mark
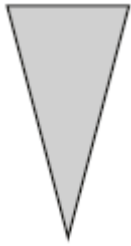
20. Laura has **23** counters altogether.

She has **14** counters in one hand.
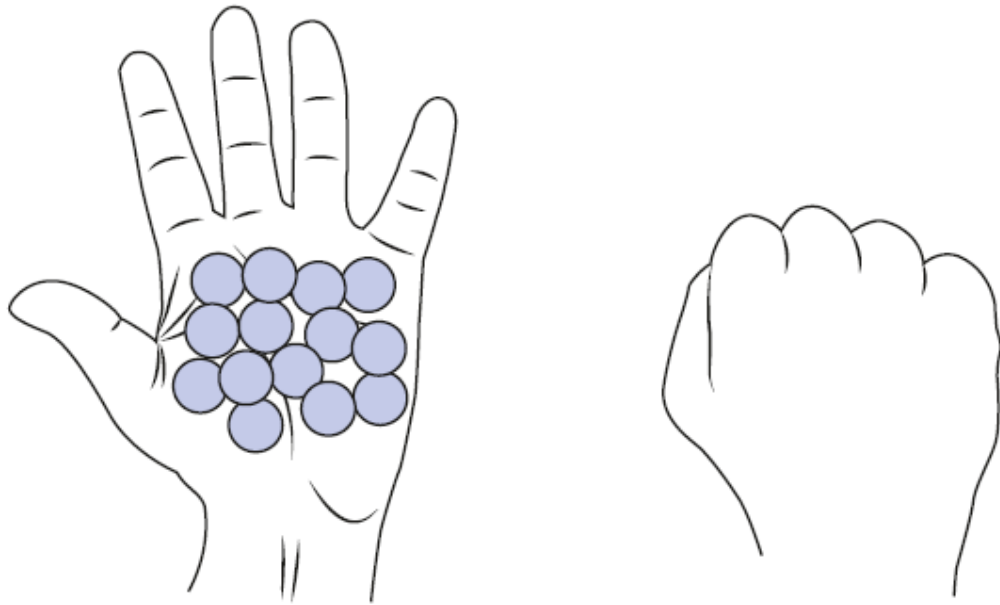
How many counters does she have in the other hand?

counters

_____

1 mark

21. Draw lines to match the shapes to their names.
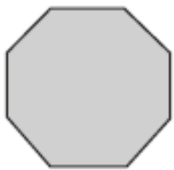
pentagon

triangle

octagon

hexagon

_____

1 mark

22. Look at these four fruits.
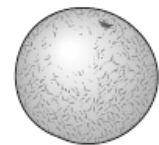
| 20p | 40p | 50p | 30p |

Kelly buys **three different** fruits.

She spends exactly £1.

Tick the **three** fruits that she buys.

_____

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23. This turtle is rotated anti-clockwise.
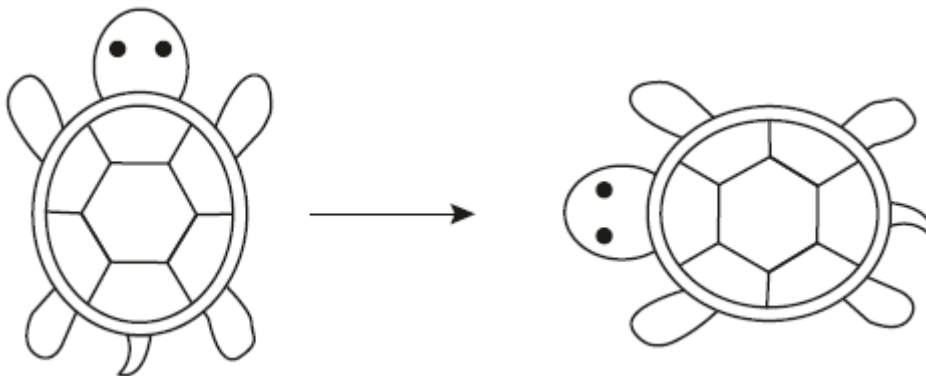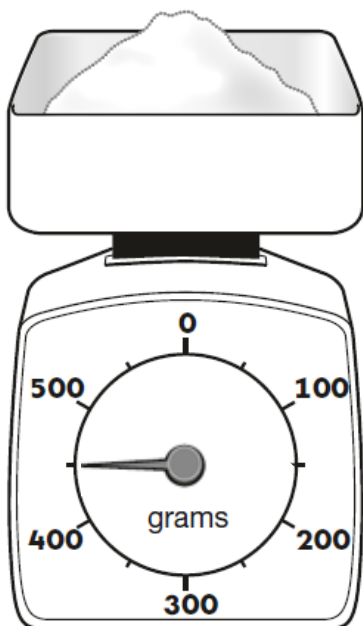

How much is the turtle rotated?

Circle your answer.

quarter turn   half turn   three-quarter turn   full turn

_____

1 mark

24. How much does the flour weigh?

grams

_____ 1 mark

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25. Match the sums that have the same answer.

   One is done for you.

20 + 7	30 + 27
50 + 7	50 + 17
60 + 7	40 + 37
70 + 7	10 + 17

(20 + 7 is connected to 10 + 17)

_____

1 mark

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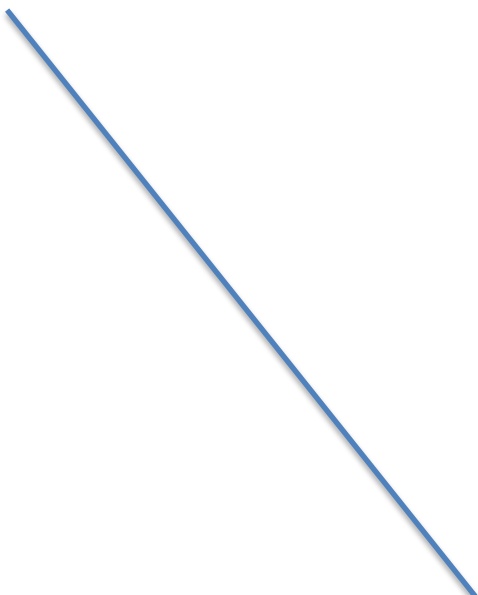
26.

One width of a swimming pool is **5** metres.

Manjit swims the width of the pool **4** times.
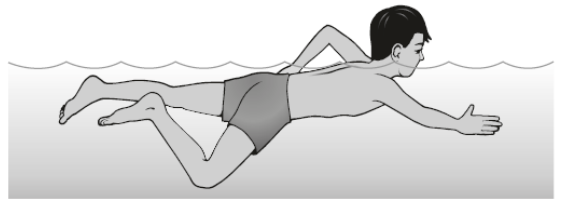
Manjit works out how many metres he swims altogether.

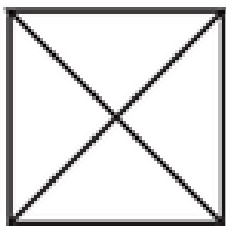Circle the **two** calculations that Manjit can use.

$$5 + 4$$

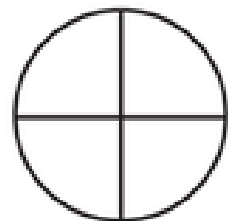$$5 + 5 + 5 + 5$$

$$5 \times 4$$

$$4 + 4 + 4 + 4$$

1 mark

27. Shade the fractions of the shapes.

Shade $\frac{1}{2}$
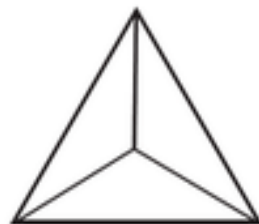
Shade $\frac{1}{3}$

Shade $\frac{3}{4}$

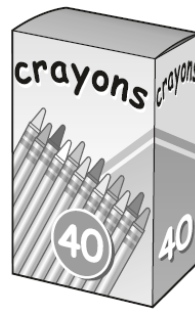2 marks

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28.

There are **40** crayons in a box.

Bob takes **13** crayons.

Jack takes **10** crayons.

How many crayons are left?

Show your working

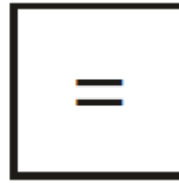crayons

2 marks

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29. Here are some signs.

> $\boxed{>}$ $\boxed{<}$ $\boxed{=}$

Write the correct sign in each box.

10×4 $\boxed{}$ $10 + 4$
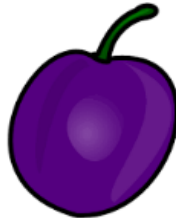
2×7 $\boxed{}$ $7 + 7$

_____

1 mark

30. Bob has 85 grapes.

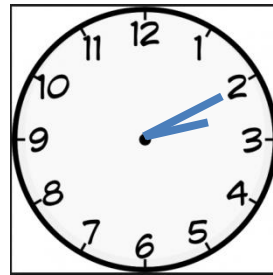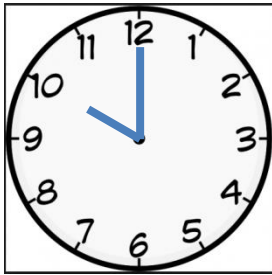He eats 27 of them.

How many grapes does he have left?

$\boxed{\qquad\qquad\qquad}$ grapes

_____

1 mark

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31. Tick the clock face that shows **ten past two.**

1 mark

END OF TEST

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