Name_____ Date_____

Satspapers.org
2012 Year 4 Optional SATs Test

Mathematics – mark scheme

Paper B for assessing at levels 3A 4C 4B 4A
45 minutes

1.   Add together 456 and 368

824

1 mark

2. Here are two signs.

<		>

Use the signs to make these correct.

62   **>**   37
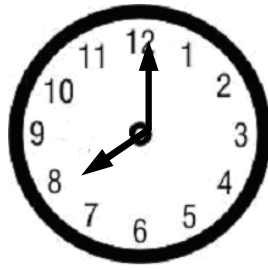
16   **<**   61

1   **<**   45

1 mark

3. **These clocks show the start and finish times of a TV programme.**
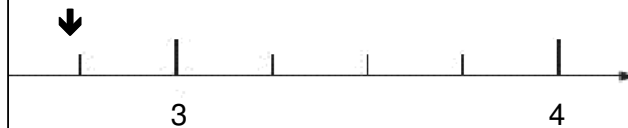

| start | finish |

For how many minutes does the programme last?

| 45 minutes |

1 mark

4. Draw an arrow (↓) on the line to show 2 $\frac{3}{4}$

| An arrow drawn on the number line as shown: Accept any other clear way of indicating 2 3/4 on the number line as long as the intention is clear. |

3   4

1 mark

**5. A packet of sweets costs 45p.   How much do six packets cost?**

Award TWO marks for the correct answer of £2.70 Up to 2
Accept £2.70p OR £2 70
If the answer is incorrect, award ONE mark for evidence of appropriate working, eg
45 × 6 = wrong answer
OR
40 × 6 = 240
5 × 6 = 30
240 + 30 = wrong answer
OR
award ONE mark for £270 OR £270p OR £27.0 as evidence of appropriate working.
An answer must be given for the award of ONE mark.

Show how you worked it out.

£ 2.70

2marks

6. The arrow is pointing south-east.

North

North-east

North-west

West   East

South-east

South-west

South
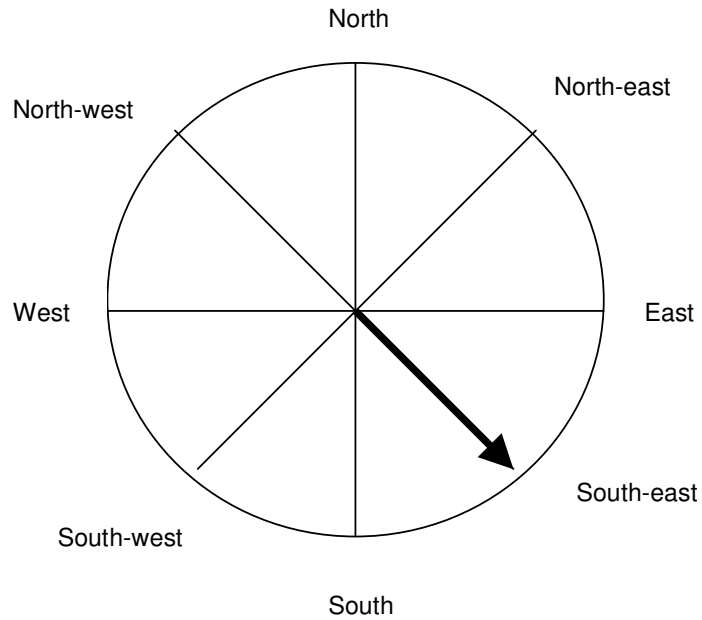
The arrow is then moved a quarter turn <u>anti-clockwise</u>.

In which direction is the arrow pointing after it is moved?

NE or north east

1 mark

Accept an unambiguous indication on the spinner.

7. Circle the two fractions which are greater than $\dfrac{1}{2}$
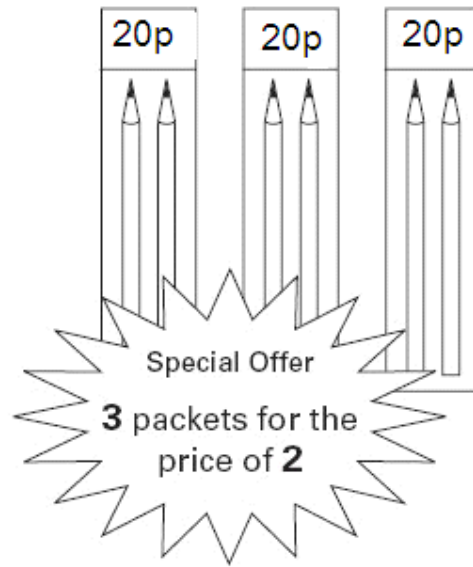
$\dfrac{5}{7}$ $\dfrac{2}{10}$ $\dfrac{1}{4}$ $\dfrac{8}{10}$

1 mark

8. **A shop has these special offers.**

20p   20p   20p

Special Offer

Was **£ 1**

Now **Half Price**

Special Offer

3 packets for the price of **2**

Alesha wants to buy 6 pencils.

Which is the cheaper offer?

Tick (✓) one box.

Half price   ✓   **3 for 2**   [ ]

Explain how you know.
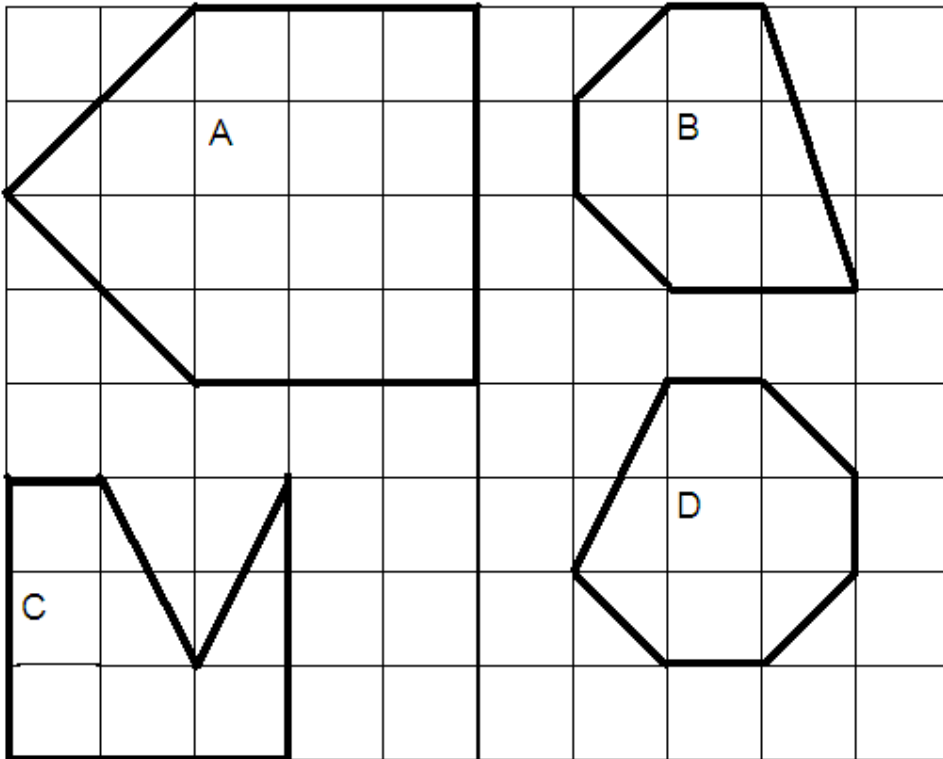
Evidence shown that child knows that 3 for 2 is best deal with some explanation that 3 for 2 = 40p for 6 pencils and half price is 50p for 6 pencils.

1 mark

9. Here are 4 shapes on a square grid.

Complete the table.

	Property of shape	
	Is a hexagon	Has at least one right angle
Shape A	x	✓
Shape B	✓	x
Shape C	✓	✓
Shape D	x	x

Table completed as above

1 mark

10.   Write in the missing digits

1	2	7	+	7	3	=	2	0	0

1 mark

11. Lucy has 24 toy cars.

$\frac{1}{2}$ **of them are red**

$\frac{1}{4}$ **of them are yellow**

The rest of them are blue.
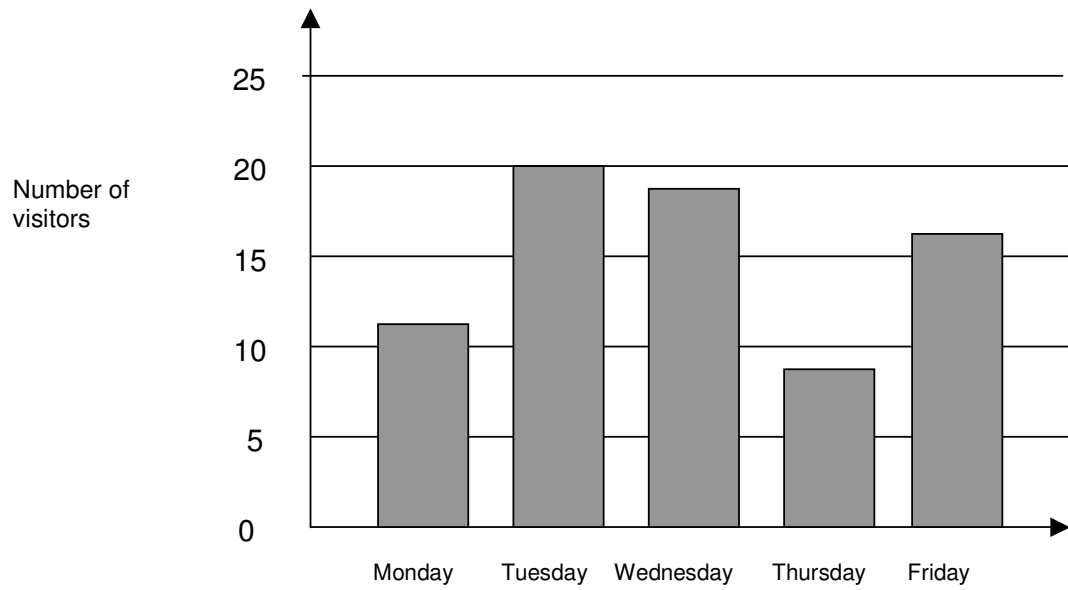
How many blue cars does she have?

6	cars

1 mark

12. What is the remainder when you divide 54 by 7?

Remainder 5

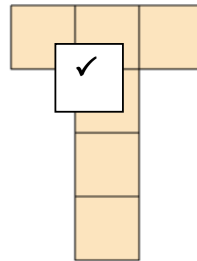**1 mark**

13. This graph shows the number of visitors to a school.

Estimate how many more visitors there we on Tuesday than Thursday.

12

1 mark

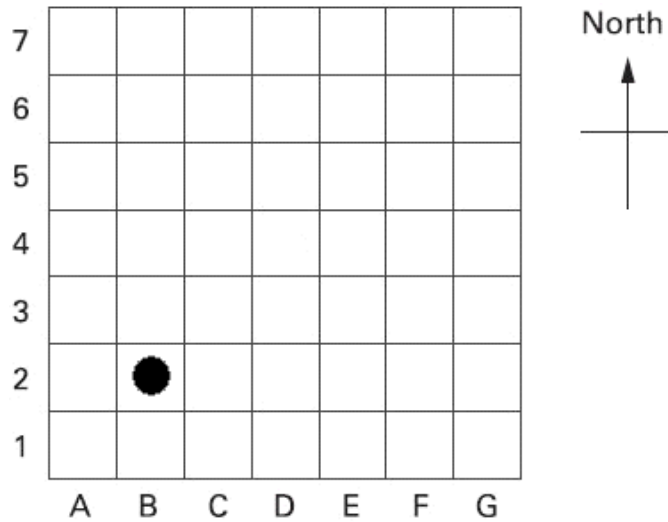**14.Two of these diagrams are nets for a cube.**

Put a tick (✓) in them.

✓

✓
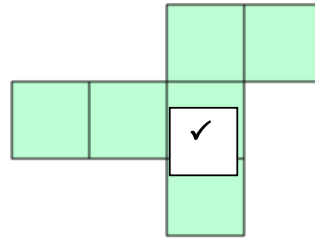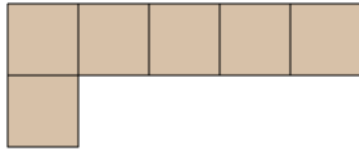
1 mark

15 Susan places a counter on square B2.

She moves it 4 squares east and 5 squares north.
Write the position of the square she moves it to.

F7

1 mark
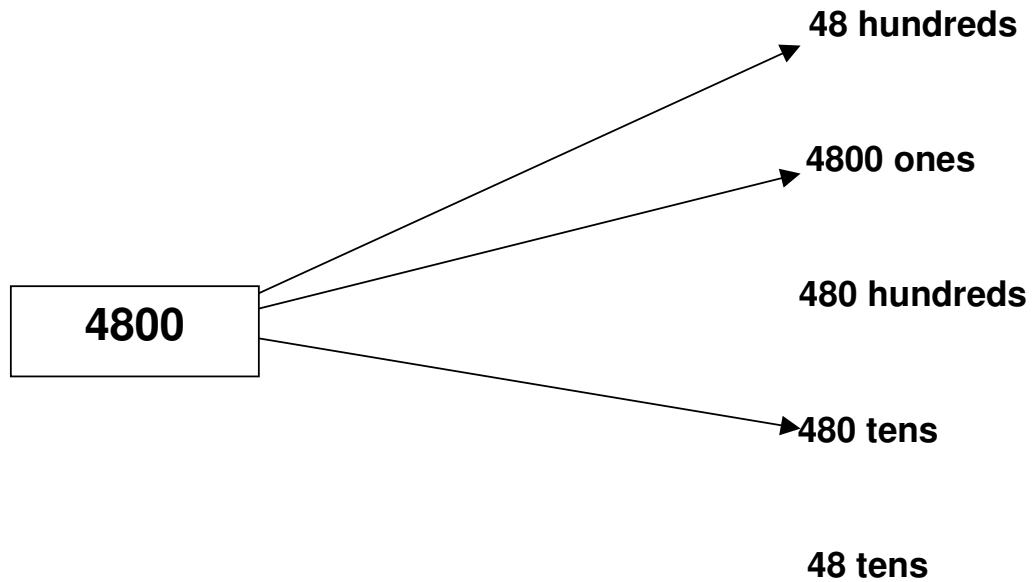
16.Write in the missing number.

$$5800 \div \boxed{58} = 100$$

1 mark

17. Calculate 756 + 667

1423

1 mark

18. Draw <u>two more</u> arrows to match 4800 to numbers with the same value.

48 hundreds

4800 ones

480 hundreds

| 4800 |

480 tens

48 tens

1 mark

19. Four children run in a race.
Jack takes 4 minutes 45 seconds.
Complete the graph for Jack .

Time taken to run the race

time in minutes

Completed as shown – allow.
Accept slight inaccuracies in drawing, provided the intention is clear.

Ella   Ben   Isobel   Jack

children
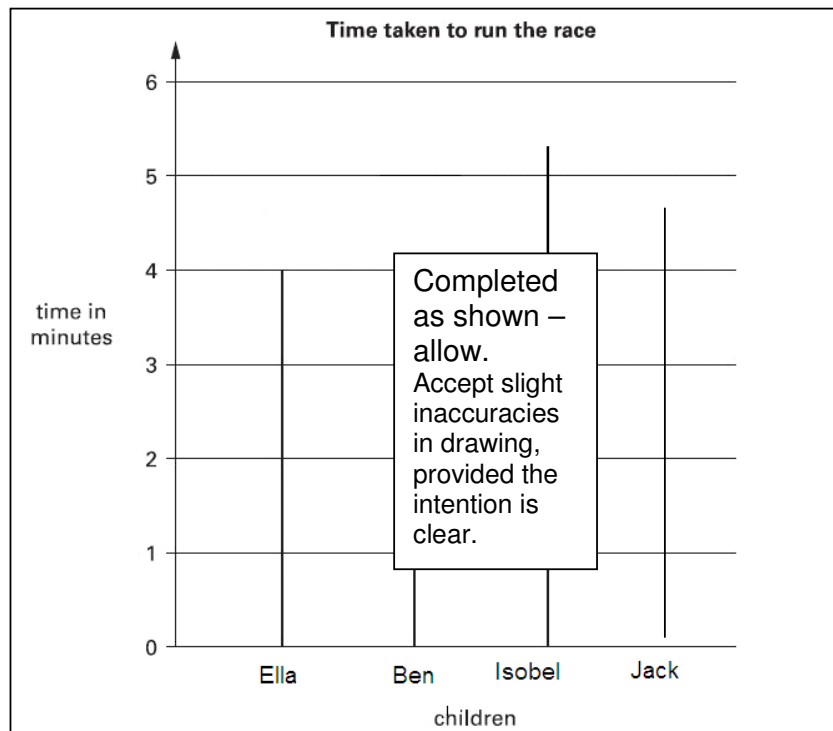
1 mark

20. Calculate 589 x 7

> 4123

1 mark

21. A shelf is 3.25 metres long. Charlotte cuts 50 centimetres off it.

How long is it now?

> 2.75m or 275cm

1 mark

22. Usain puts this amount of water in a container.
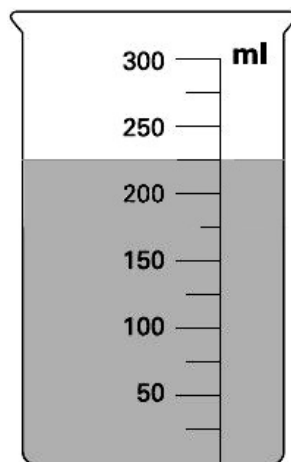
Then he pours 50 millilitres of the water out.
How much water is left in the container?

> 175 ml

1 mark

23. Ellie has the same number of 20p and 50p coins.
   She has £4.20
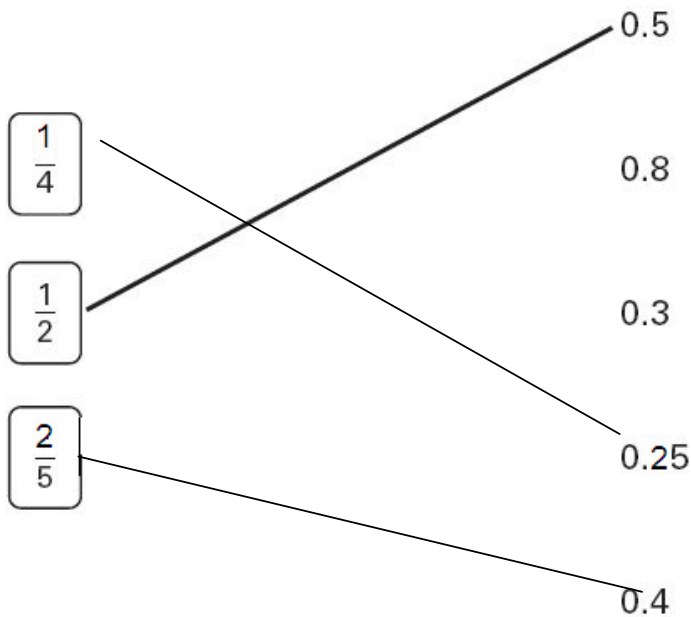   **How many of each coin has she?**

6

of each coin

1 mark

24. Calculate 9.46 – 5.79
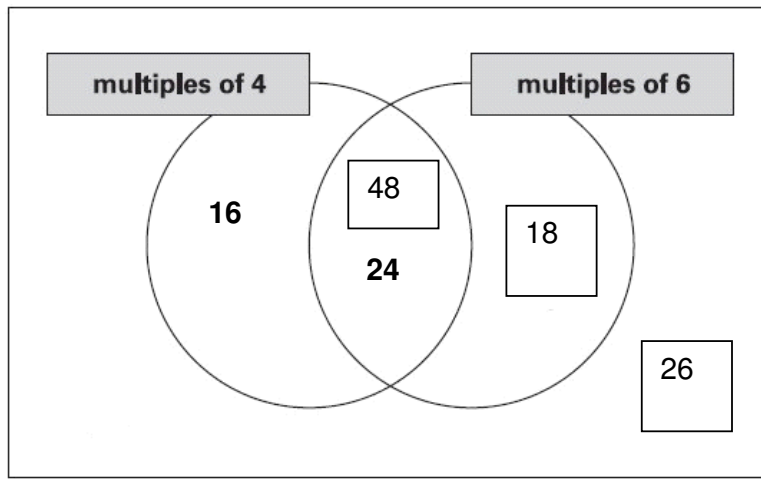
3.67

1 mark

25. Match each box to the number which has the same value.
   One has been done for you.

1 mark

26. **Write these numbers in the correct places on this sorting diagram.**

18   26   48

```
┌─────────────────────────────────────────────────────────┐
│  ┌──────────────────┐          ┌──────────────────┐      │
│  │  multiples of 4  │          │  multiples of 6  │      │
│  └──────────────────┘          └──────────────────┘      │
│                       ┌────┐                              │
│          16           │ 48 │     ┌──────┐                 │
│                       └────┘     │  18  │                 │
│                         24       └──────┘                 │
│                                                           │
│                                        ┌──────┐           │
│                                        │  26  │           │
│                                        └──────┘           │
└─────────────────────────────────────────────────────────┘
```

2 marks for all correct.   1 mark for 2 correct.

2 marks

27. **Four ice creams cost £5.20**

Calculate the cost of <u>one</u> ice cream.

Allow £1.30p

┌──────────────────┐
│ £1.30 or 130p   │
└──────────────────┘

1 mark

28. **A, B and C are three corners of a rectangle.**
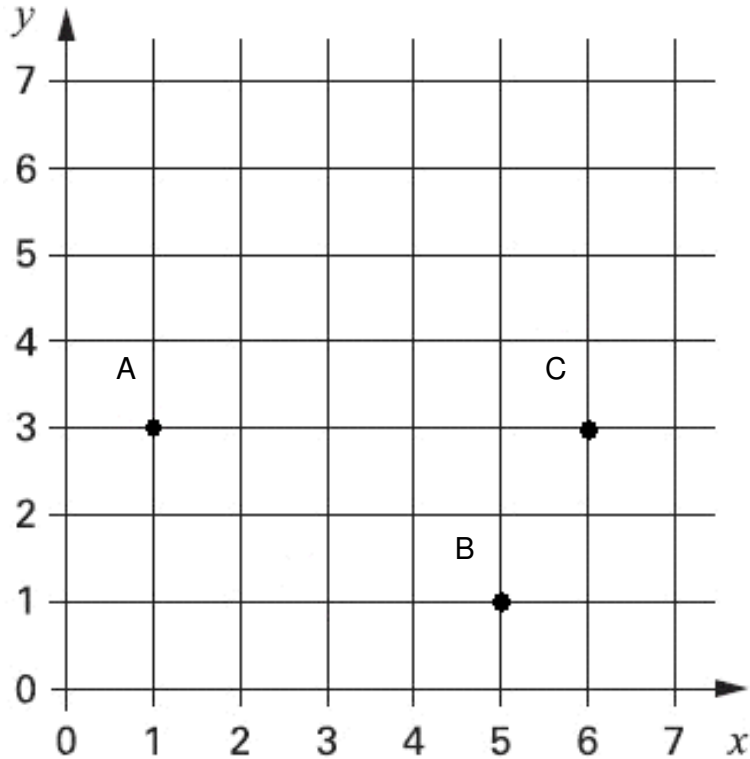
What are the coordinates of the fourth corner?

(**2** , **5**)

1 mark

29. **Ella and her big brother Toby have a total weight of 90 kilograms**

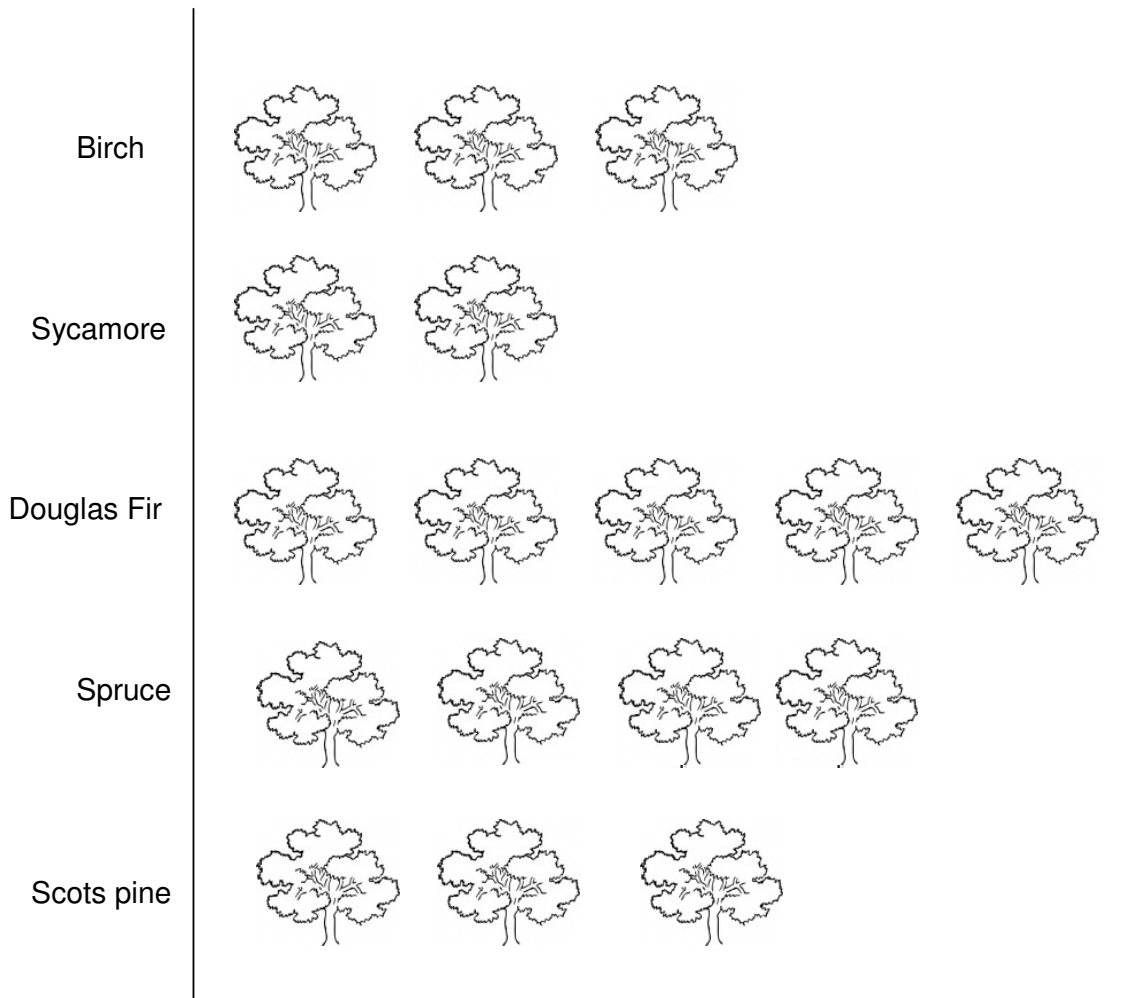**Toby weighs twice as much as Ella.**

Write the weight of Toby.

60 **kg**

1 mark

14

30. Trees need to be planted in a forest.

 stands for **100 trees**

Trees are planted as shown in this graph.

Birch	🌳 🌳 🌳
Sycamore	🌳 🌳
Douglas Fir	🌳 🌳 🌳 🌳 🌳
Spruce	🌳 🌳 🌳 🌳
Scots pine	🌳 🌳 🌳

Altogether, 5000 trees are needed.

How many more need to be planted?

3300

1 mark

31. Here is part of a number grid.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Here is another part of the same grid.
Write in the missing number.

70

73

78
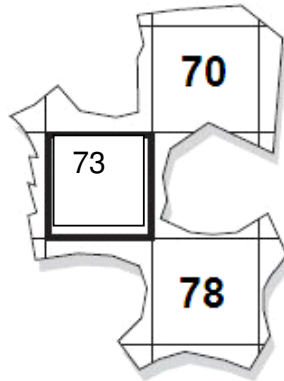
1 mark

32. Here are some shapes.
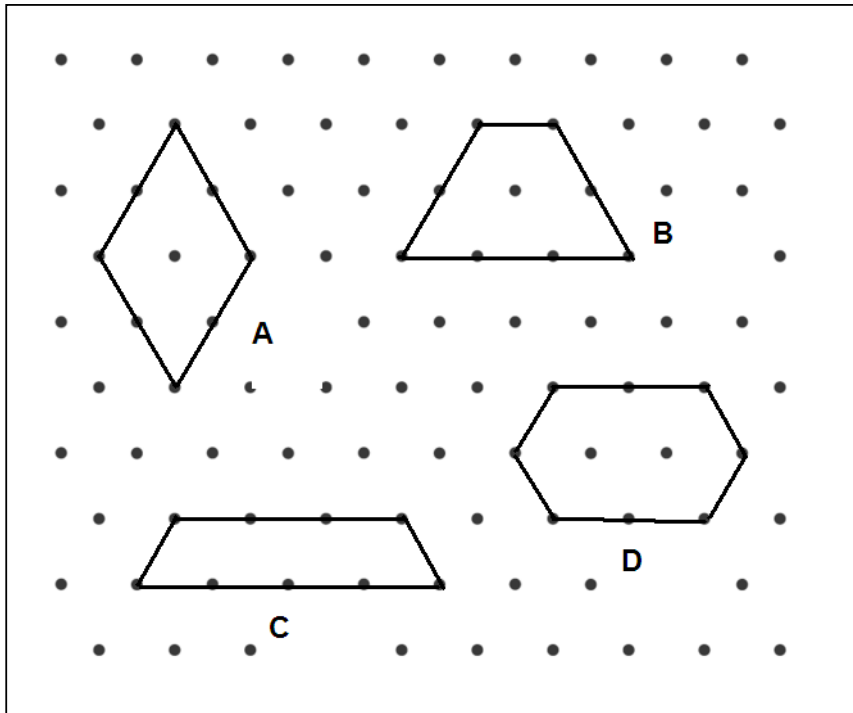
Write the letters of the two shapes that are equal in area.

…...............A............... and …..............B................

1 mark

33.

△ **and** ○ **stand for different numbers.**

△ **= 28**

△ **+** △ **=** △ **+** ○ **+** ○

What is the value of ○ **?**

14

1 mark