Name_____ **Date**_____

Mathematics
Paper B – mark scheme
Calculator allowed. 45 minutes

1. Write the missing numbers in this sequence.

96	48	24	12	6

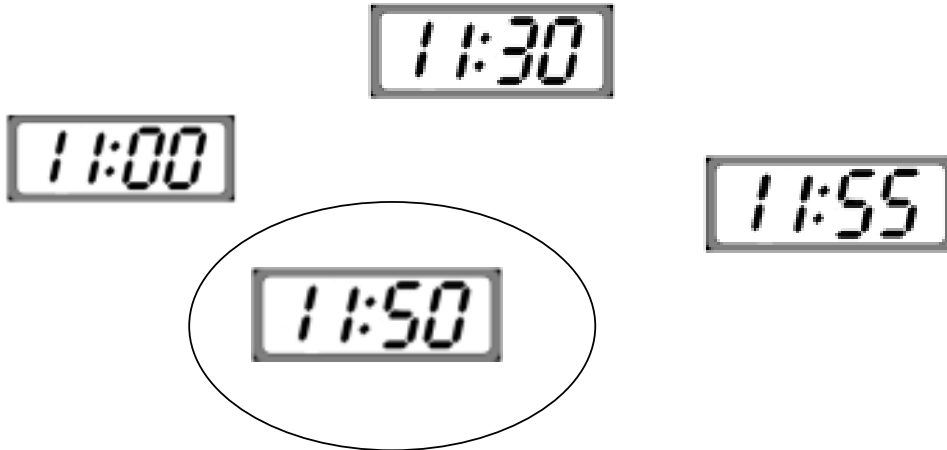**1 mark**

2. There are 80 marbles in a bag.

3 children take 20 marbles each.
How many marbles are left in the bag?

20

1 mark

3. **A train leaves at 11.10am. It takes 40 minutes to get to its destination.**

   Circle the time it arrives.

   `11:30`

   `11:00`

   `11:55`

   (`11:50`)

   1 mark

4. **Write what the missing numbers could be.**

Any correct multiplication - eg

   | 12 | **X** | 10 | **= 120**

   1 mark

5. **Write in the missing numbers**
   One has been done for you.

   **Rounded to
   the nearest
   whole number is**

   7.07 ⟶ | 7 |
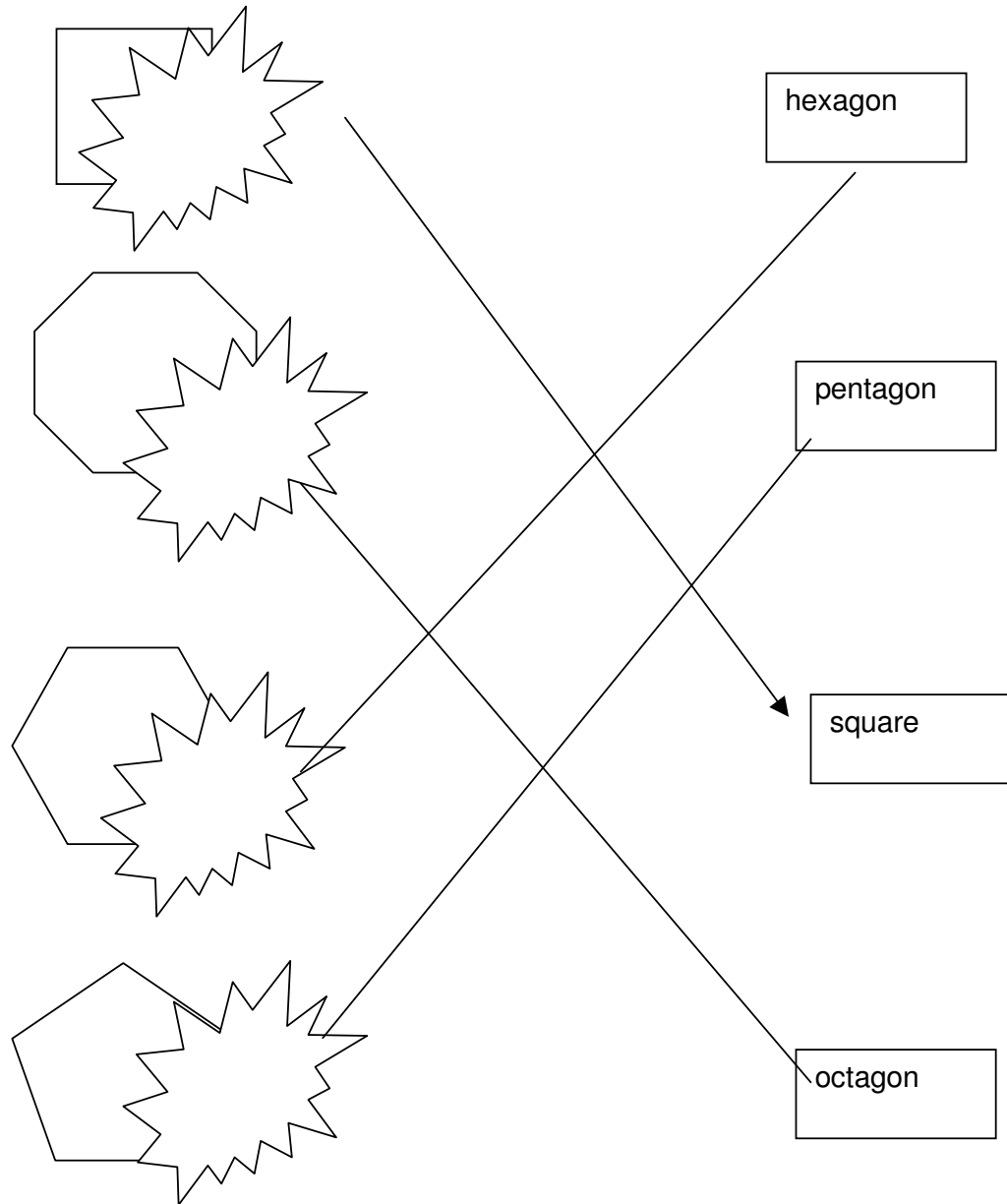
   9.57 ⟶ | 10 |

   8.75 ⟶ | 9 |

   1 mark

6. Here are some regular 2-D shapes.

A star hides part of each one.

Match each <u>regular</u> shape to its name.

One has been done for you.
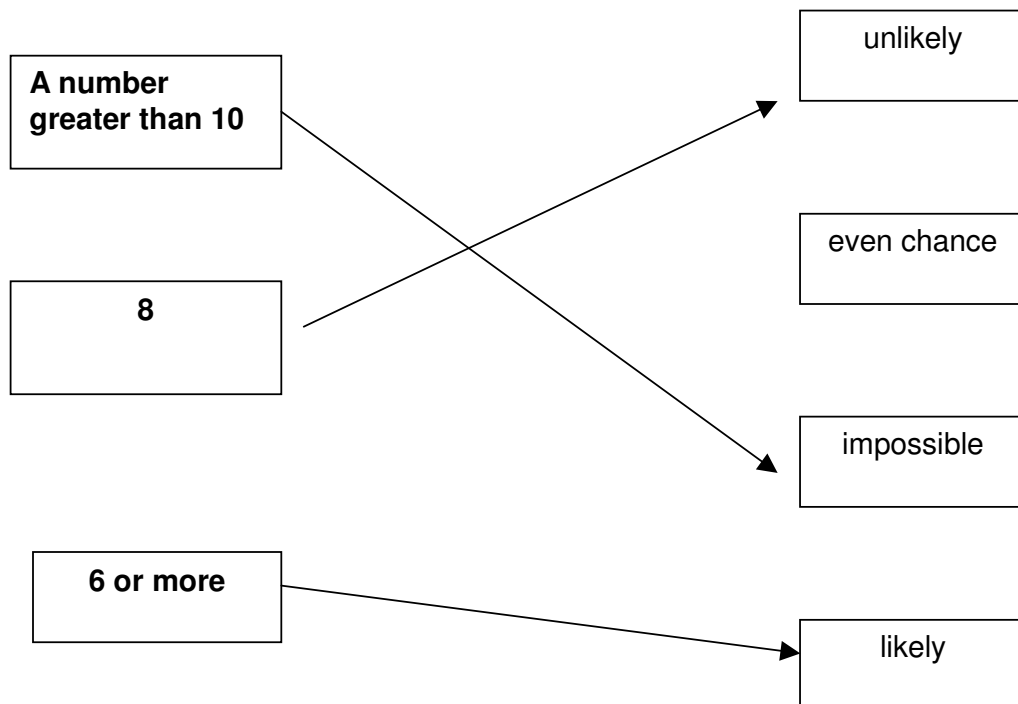
hexagon

pentagon

square

octagon

1 mark

7. Harry has this spinner.
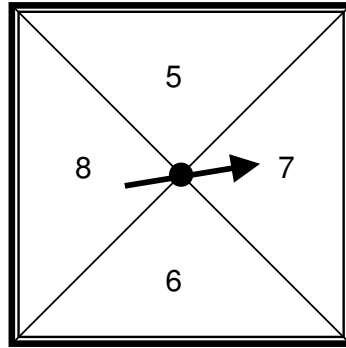
What is his chance of spinning the numbers below?
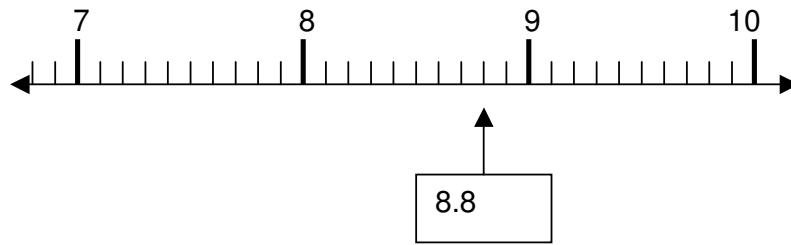Match each number to the correct word.
One has been done for you.

A number greater than 10		unlikely
8		even chance
		impossible
6 or more		likely

1 mark

8. 140 ÷ [20] **= 7**

1 mark

9. Here is part of number line. Write the missing number in the box.

7   8   9   10

8.8

1 mark

10.   Jamal asked his class,

'What is your favourite subject?'

Here are his results.

stands for → **2** children

Science

ICT

English

Maths
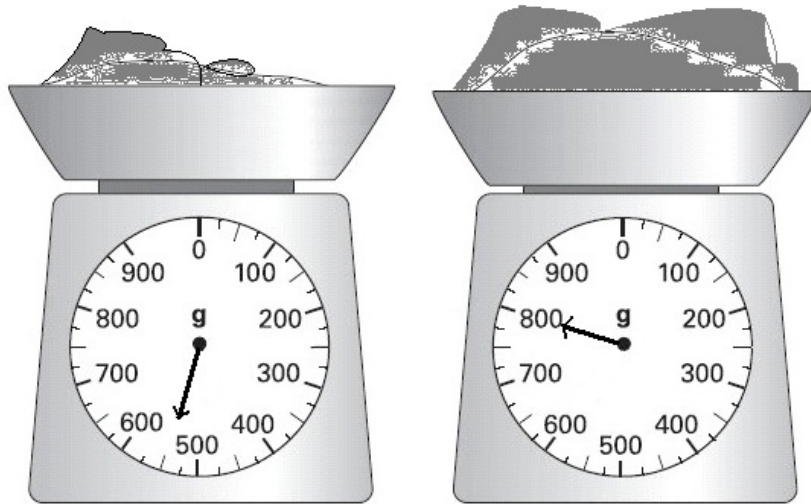
number of children
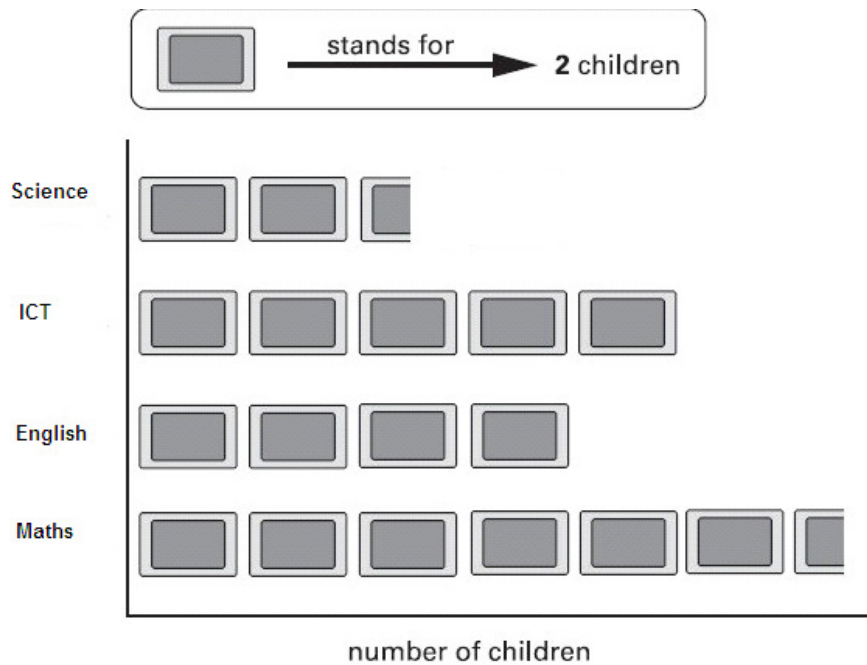
How many <u>more</u> children prefer ICT than science?

5

1 mark

11. **Clay is being weighed on these scales. How much heavier is the clay in the second scales?**


```
 2 marks if answer correct.

1 mark for incorrect answer but evidence that child knows you
have to find difference between 550 and 800.
```

Show your
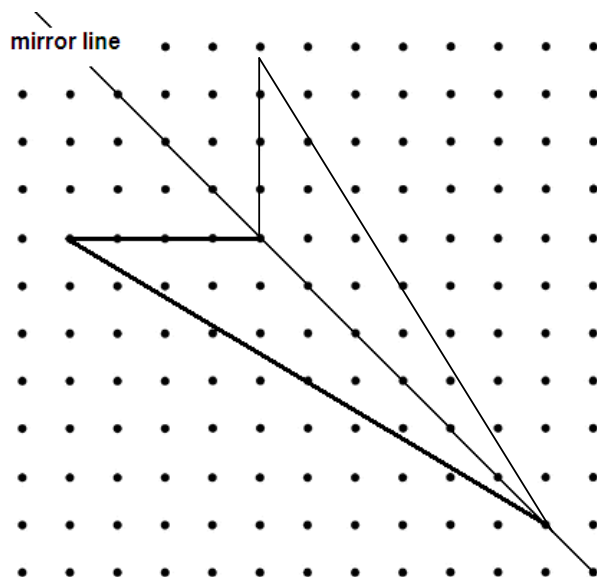**method** and
you may get a
mark.

| 250 | g |

2 marks

12. Write what the missing numbers could be.
Any subtraction which has answer of 40 eg

140 = (| 60 | **-** | 20 | **) + 100**

1 mark

13. Draw the <u>reflection</u> of the shape in the <u>mirror line.</u>
Use a ruler.

Completed as here, allow slight inaccuracies as long as intention is clear.

1 mark

14. Here are four digit cards.

| 8 | 3 | 4 | 2 |

Write in <u>three</u> of the digits to make <u>the total nearest to 500.</u>

250 + | 2 | 4 | 8 |

1 mark

15.   These graphs show data about Alex, Lynne, Paul and Tom.

Weight (kg)

Handspan (cm)
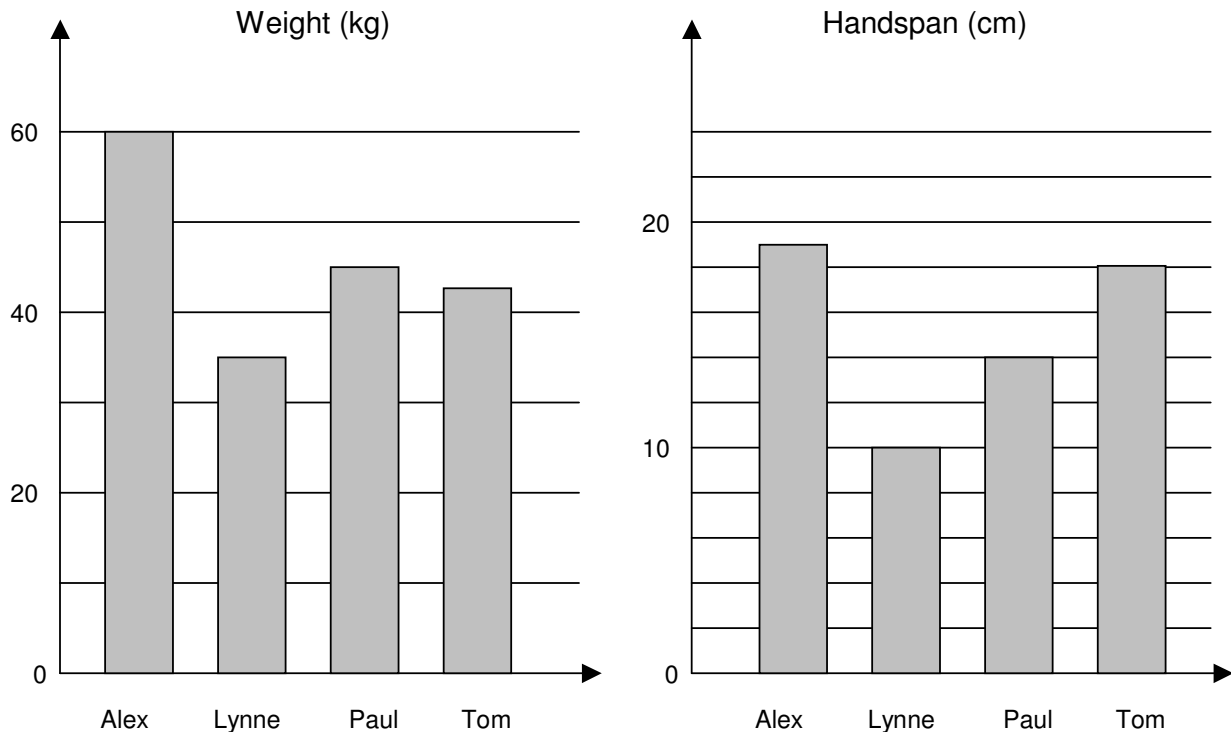
Use this data to write each person's name in the correct region on the Venn diagram.
One has been done for you.

Weighs more than 40kg		Handspan less than 16cm
Alex	Paul	Lynne
Tom		
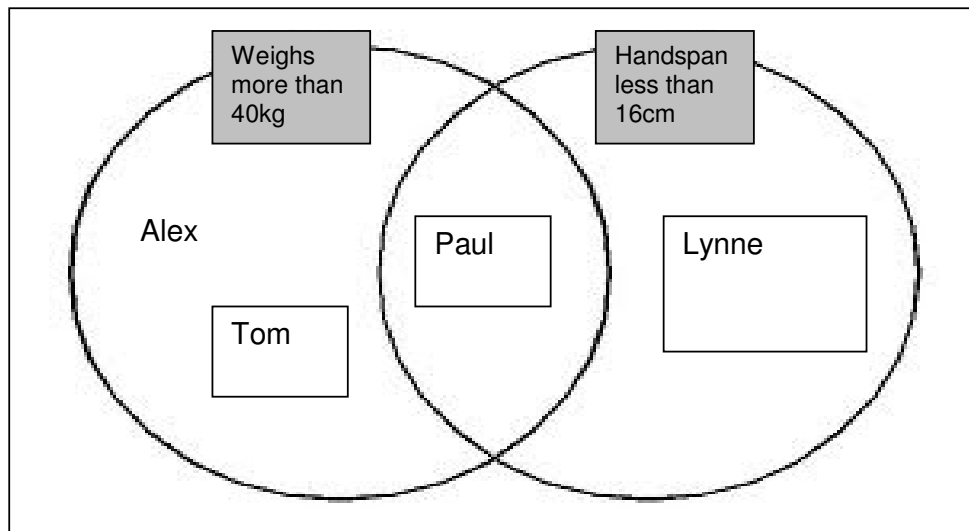
Two marks for all 3 correct, one mark for 2 correct
2 marks

16. The population of a town is more than 7500, but less than 9800. Tick (✓) the amounts it could be.

7569   [✓]

8900   [✓]

9900   [ ]

9810   [ ]

1 mark

17.   Two children take part in a sponsored silence.

Sponsored Silence

Keep quiet!
Make money
for the hospital.
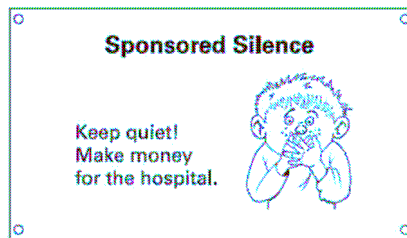
Laura

I kept quiet from 11.20 until 11.25 in the morning. I got £4.52 a minute.

Carl

I kept quiet for quarter of an hour. I got £2.35 a minute.

How much money did each child get?

Laura   £ 22.60

Carl   £ 35.25

2 marks

18. Match each quadrilateral to the correct description.
One has been done for you.

Equal length sides and every angle is a right angle.

No parallel sides.

Opposite sides are parallel. No right angles.

Two pairs of parallel sides. Sides not all the same length.

1 mark

19. Here is a number grid. The shaded numbers are part of a sequence.

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	35

Explain the rule for the sequence.

……………Explanation that numbers are going up in eights

....

....

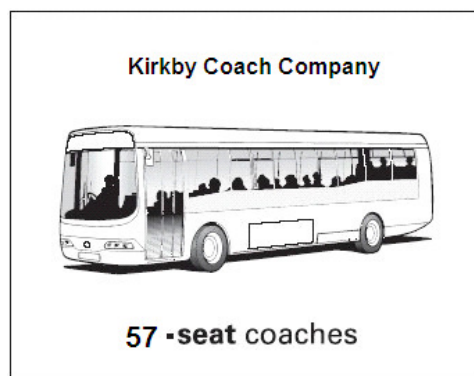**1 mark**

20. Patrick has drawn triangle ABC on this grid.
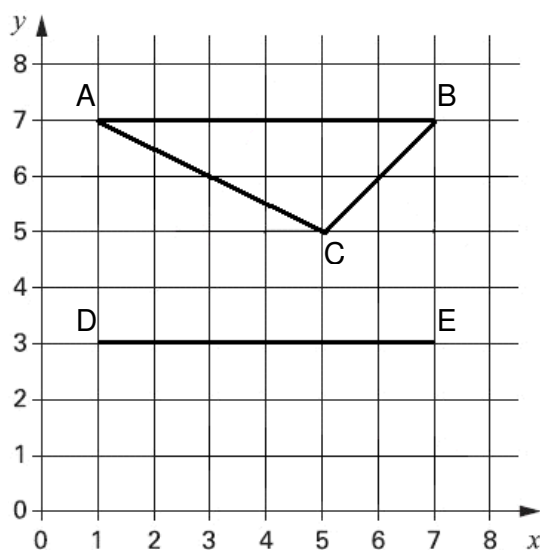
Jordan has started to draw an <u>identical</u> triangle DEF.
What will be the coordinates of point F?

(5   ,   1   )

1 mark

21.

Kirkby Coach Company

57 -seat coaches

306 children and 33 adults from Hill School go on a coach trip.
How many 57-seat coaches does the school need to hire?

2 marks for correct answer of 6 coaches.

1 mark for evidence of knowledge of process – ie. adding 306 and 33 and dividing by 57, but incorrect answer .

Show your working and you may get a mark.

6

2 marks

22. Circle one amount each time to make these sentences correct.

	Big Ben's height is approximately:	100cm
		100m
		100km

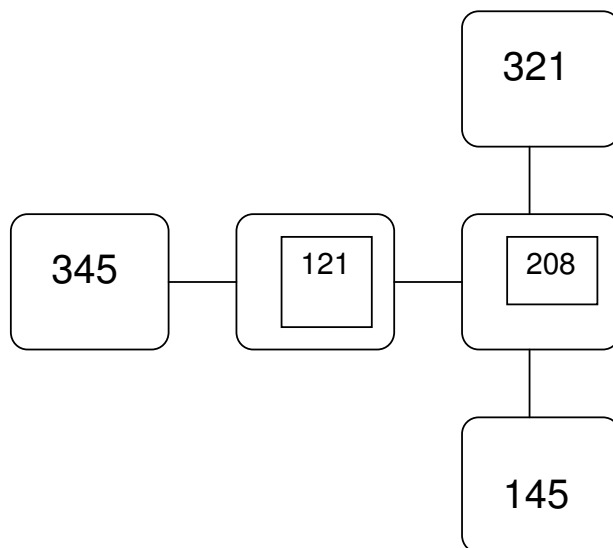| | **A mug is likely to contain:** | 3ml |
| | | 300ml |
| | | 3000ml |

1 mark

23. **Jack, Jacob and Nathan collect picture cards.**
Cards are worth either 50 points or 100 points.
The table shows the cards they have.

	50 points	100 points	Total number of points
Jack	**4**	**3**	**500**
Jacob	**7**	3	**650**
Nathan	**3**	**4**	550

1 mark

24. **The three numbers on <u>each line</u> add up to <u>674.</u>**
Write in the missing numbers.

```
                    ┌───────┐
                    │  321  │
                    └───────┘
                        │
┌───────┐   ┌─────────┐   ┌─────────┐
│  345  │───│ ┌─────┐ │───│ ┌─────┐ │
└───────┘   │ │ 121 │ │   │ │ 208 │ │
            │ └─────┘ │   │ └─────┘ │
            └─────────┘   └─────────┘
                              │
                         ┌───────┐
                         │  145  │
                         └───────┘
```

1 mark

25. $\dfrac{1}{5}$ **of** **435** **=** 87

1 mark

26. RS is a straight line.

Not drawn
accurately

R ——————————————————————— S
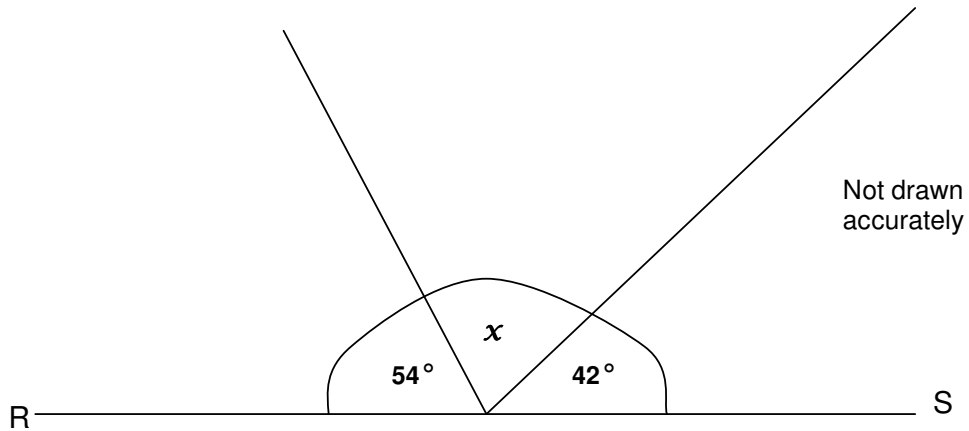
Calculate the size of angle x.

Do not use a protractor (angle measurer).

84°

1 mark

27. Circle the two fractions which are equivalent to 0.8

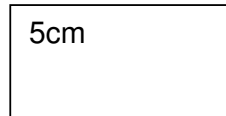$\dfrac{1}{8}$ $\dfrac{8}{10}$ $\dfrac{80}{100}$ $\dfrac{1}{80}$

1 mark

**28. Rectangle ABCD has a perimeter of <u>40 centimetres.</u>
Sides AB and DC are <u>3 times as long</u> as sides AD and BC.**

A ┌─────────────────────────────────────┐ B
  │   │
  │   │
  │   │
D └─────────────────────────────────────┘ C

Not actual size

**Calculate the length of side AD.
Do <u>not</u> use a ruler.**

┌──────────────┐
│ 5cm   │
│   │   **1 mark**
│   │
└──────────────┘

29. Write in the missing number

┌─────────┐   ┌─────────┐   ┌─────────┐   ┌─────────┐
│   2   │ x │   75   │ = │   12   │ x │ 12.5   │
└─────────┘   └─────────┘   └─────────┘   └─────────┘

1 mark

30. Here is a shaded square.
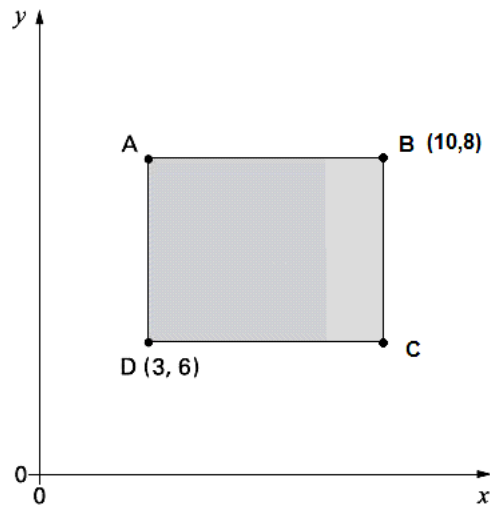
Write the coordinates for point C.

C = (10 , 6)

1 mark

31. Here are the ingredients for flapjacks.

> **Flapjacks**
>
> 120g butter
>
> 100g sugar
>
> 4 tablespoons syrup
>
> 250g oats

Martha makes flapjacks using <u>1000g of oats</u>.

What weight of <u>butter</u> should she use?

480 g

Allow 480

1 mark