CITY OF LONDON
FREEMEN'S SCHOOL

SAMPLE ENTRANCE EXAMINATION PAPER

For pupils currently in Year 6

MATHEMATICS

- The test is 45 minutes long.
- You may **not** use a calculator.
- Write in ink, draw diagrams in pencil.
- Show your working and write your answers on the lines provided.
- You must show your working
- You will need a pencil and a ruler
- You will be given tracing paper

RMH	**S0908**	✓	11+MAT

1. 3.7+5.7 _____ (1)

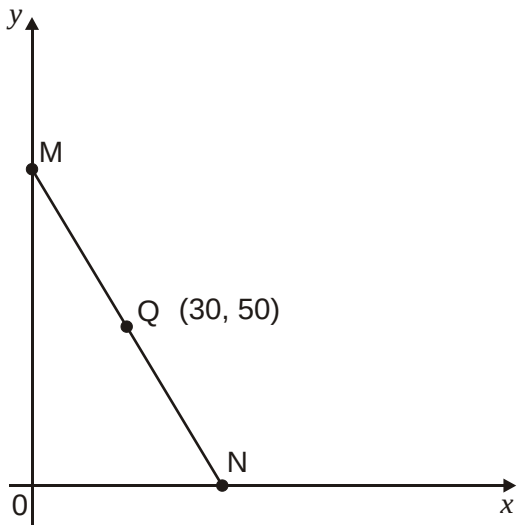
2. 15.2-5.7 _____ (1)

3. 254 x 6 _____ (1)

4. 342÷6 _____ (1)

5. Q is the **midpoint** of line MN.

The coordinates of Q are (30, 50)



What are the coordinates of points **M** and **N**?

M is (..... , ...)

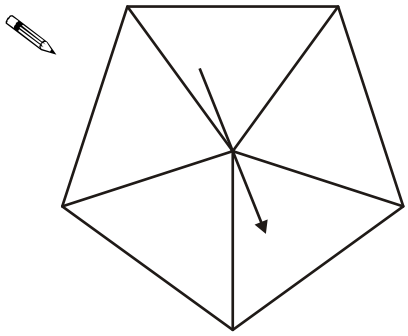
(1)

N is (..... , ...)

(1)

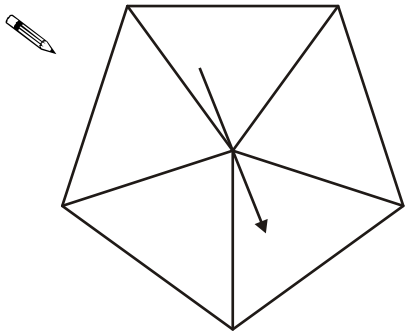
6. On each spinner **write five numbers** to make the statements correct.

It is **certain** that you will get a number **less than 6**



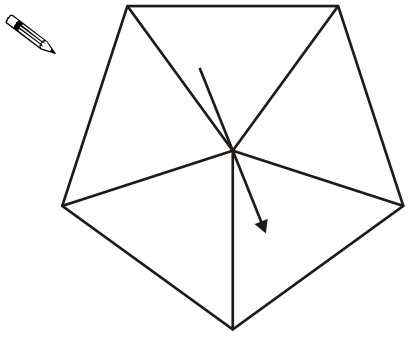
(1)

It is **more likely** that you will get an **even** number than an **odd** number.



(1)

It is **impossible** that you will get a **multiple of 3**



(1)

7. A meal in a restaurant costs the same for each person.

For **11** people the total cost is **£253**

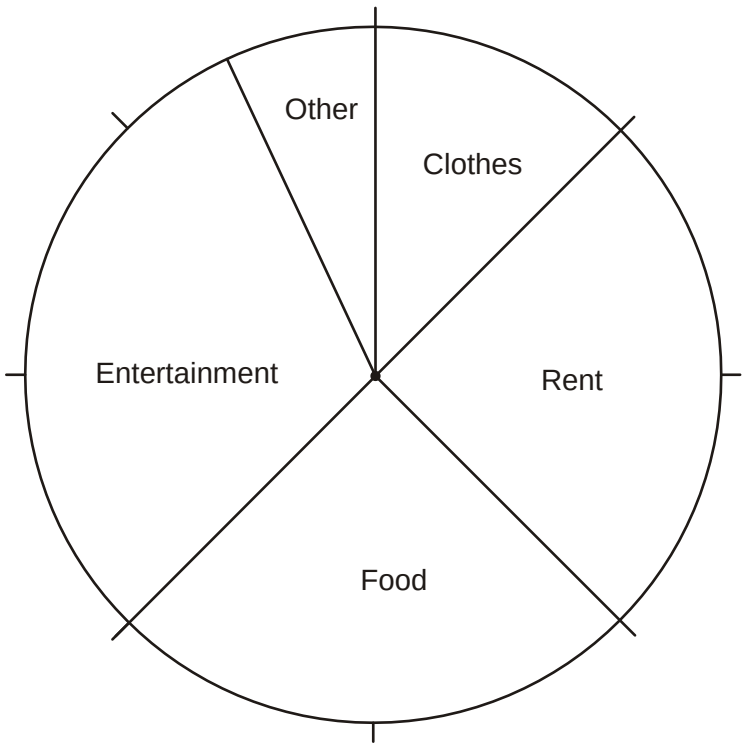
What is the total cost for 12 people? _____ (2)

8. **1976 v 2002**

Look at this information.

In 1976, a man earned £16 each week.

The pie chart shows how he spent his money.



(a) How much did the man spend on **food** each week?

_____ (1)

(b) Now look at this information.

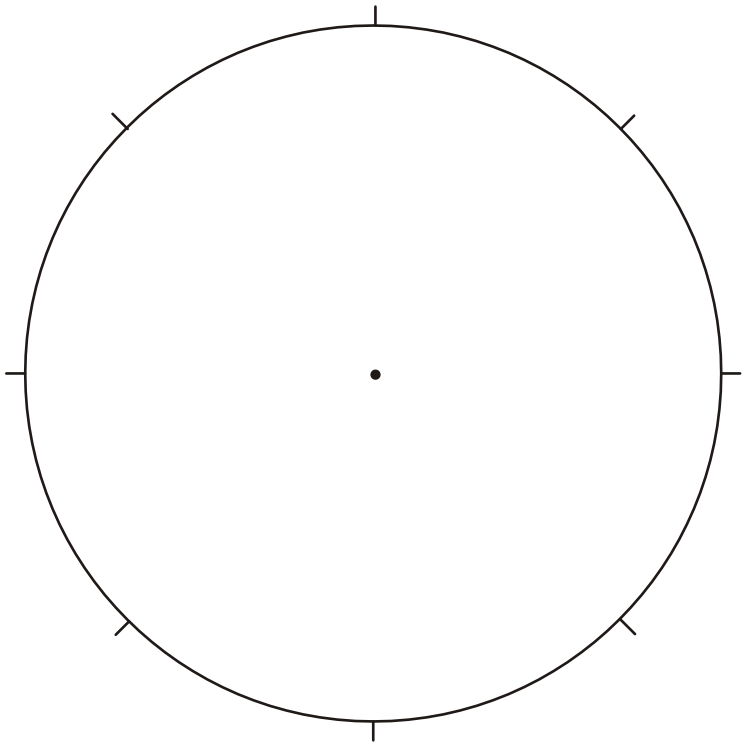
In 2002, a man earned £400 each week.

The table shows how he spent his money.

Rent	£200
Food	£100
Entertainment	£50
Other	£50

Complete the pie chart below to show how the man spent his money.

Remember to **label** each sector of the pie chart.



(2)

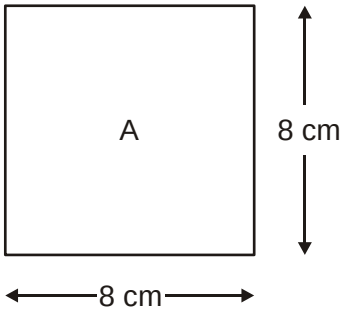
9. Calculate -12 – 5 = _____ (1)

10. 6 – 18 = _____ (1)

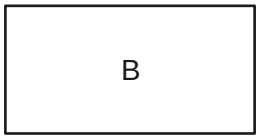
11. -2 + 9 = _____ (1)

12. I have a square piece of paper.

The diagram shows information about this square labelled A.

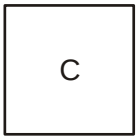


I fold square A **in half** to make rectangle B.



What is the perimeter of shape b? _____ (1)

Then I fold rectangle B **in half** to make square C.



What is the perimeter of square c? _____ (1)

13. Calculate 15% of £340

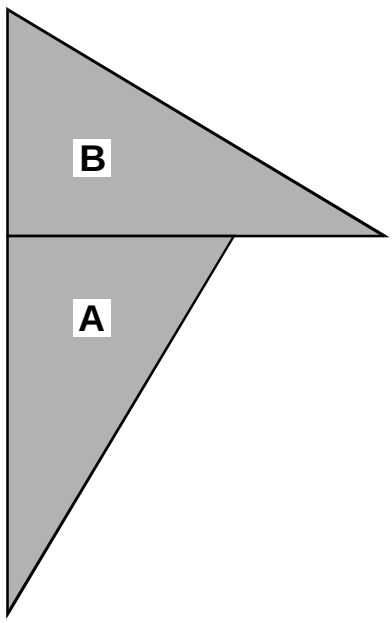
_____ (2)

14. Calculate ⅝ of $ 160

_____ (2)

15. a) You can **rotate** triangle **A** onto triangle **B**.

Put a cross on the **centre of rotation**.



You may use tracing paper to help you.

(1)

b) You can **rotate** triangle **A** onto triangle **B**.

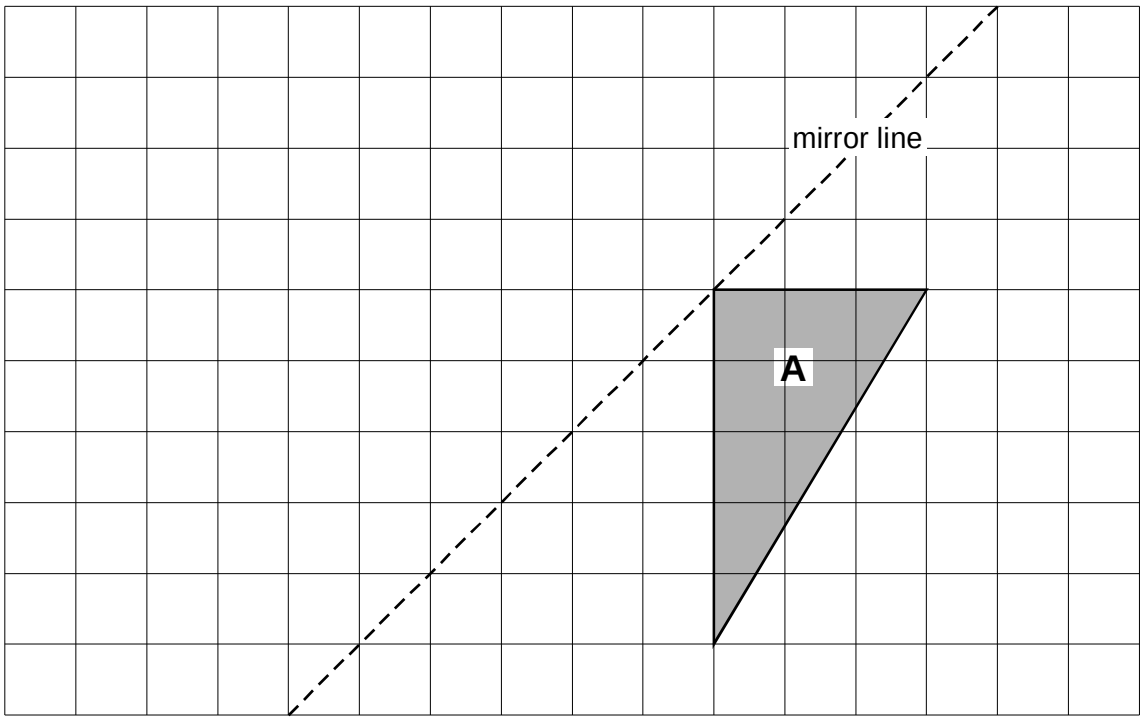
The rotation is **anti-clockwise**.

What is the **angle** of rotation?

Angle .....° (1)

(c) **Reflect** triangle **A** in the mirror line.

You may use tracing paper to help you.



(1)

17. A bag of sweets contains 420 sweets. If these are to be shared equally between 17 people how many sweets would each person get?

_____

(2)

18. Put these numbers in order if size from smallest to largest:

0.2 , 0.122 , 0.02, 0.0546, 0.102, 0. 065

_____ _____ _____ _____ _____

(2)