MEASURING AND DRAWING

CONTENT DOMAIN REFERENCES:
G3, G4, M7

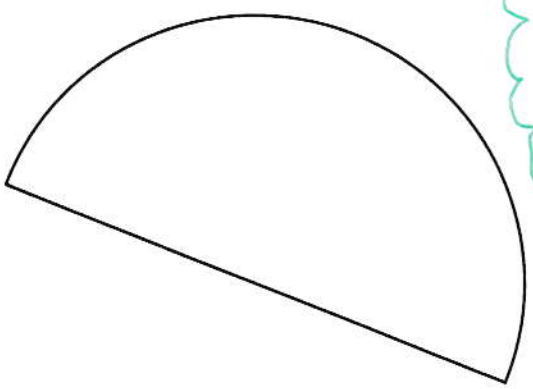
KS2 SATS

PRACTICE QUESTIONS BY TOPIC

1 Here is a semi-circle.

[2012] Measure accurately the length of the straight edge.

Give your answer in **centimetres**.



NOTE: THE SOLUTIONS FOR MEASURING LENGTHS [THROUGHOUT THIS BOOKLET] ASSUME FULL-SIZE (A4) PRINTOUTS

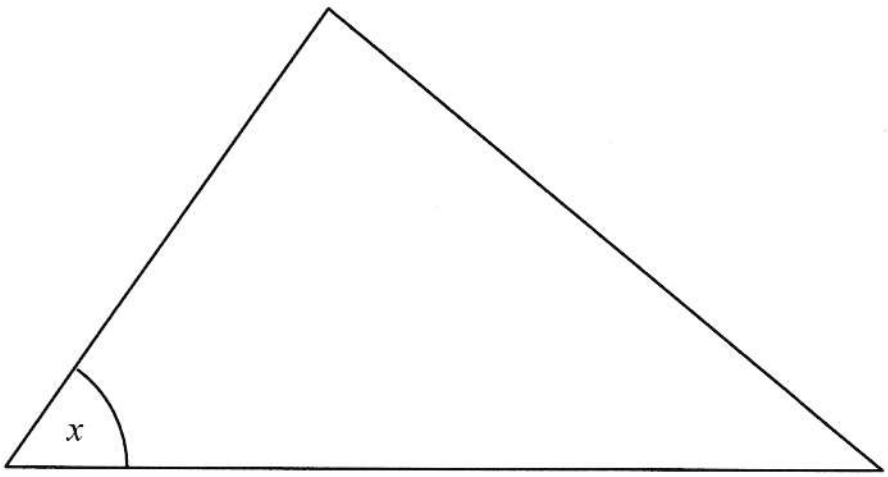
7 cm

[ACCEPT 7.1]

[1 mark]

2 Measure angle x accurately.

[2004] Use a protractor (angle measurer).



55°

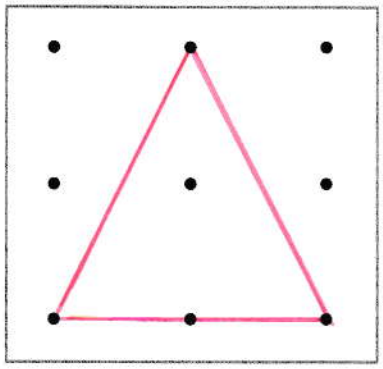
[1 mark]

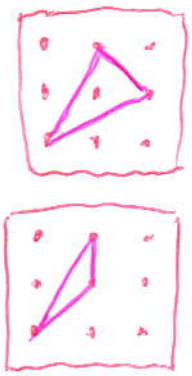
Questions compiled by:
@Maths4Everyone

3 [2002]

On the grid join dots to make a triangle which does **not** have a **right angle**.

Use a ruler.

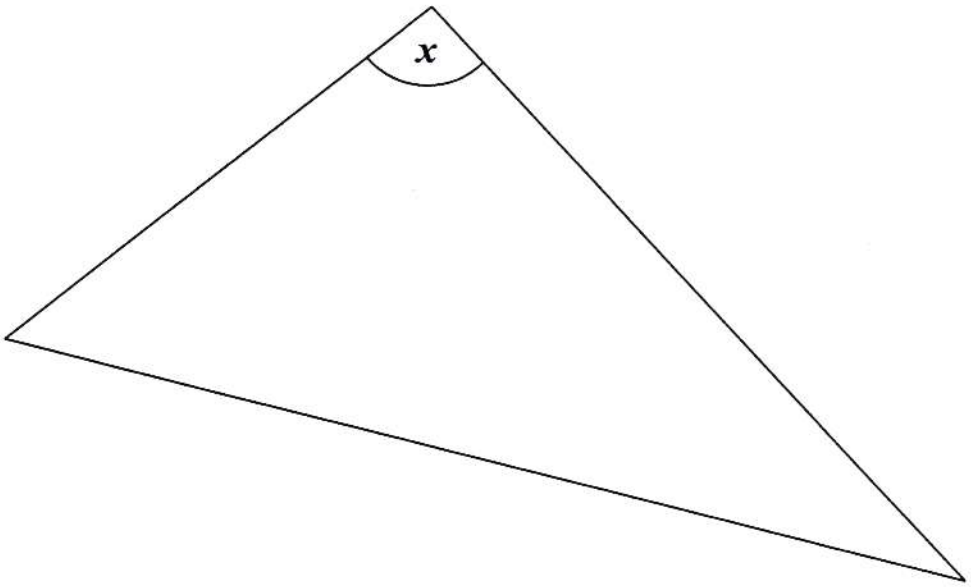




ACCEPT ANY ROTATIONS, TRANSLATIONS OR REFLECTIONS

[1 mark]

4 [2004]



Measure angle x accurately.

Use a protractor (angle measurer).

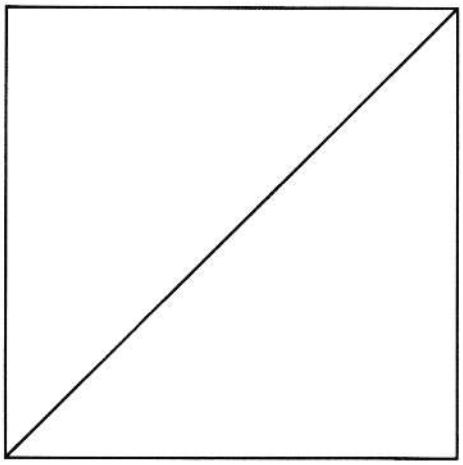
95 °

[94 - 96]

[1 mark]

5

[2004]



Measure accurately the length of the **diagonal** of this square.

Give your answer in **centimetres**.

8.5 cm

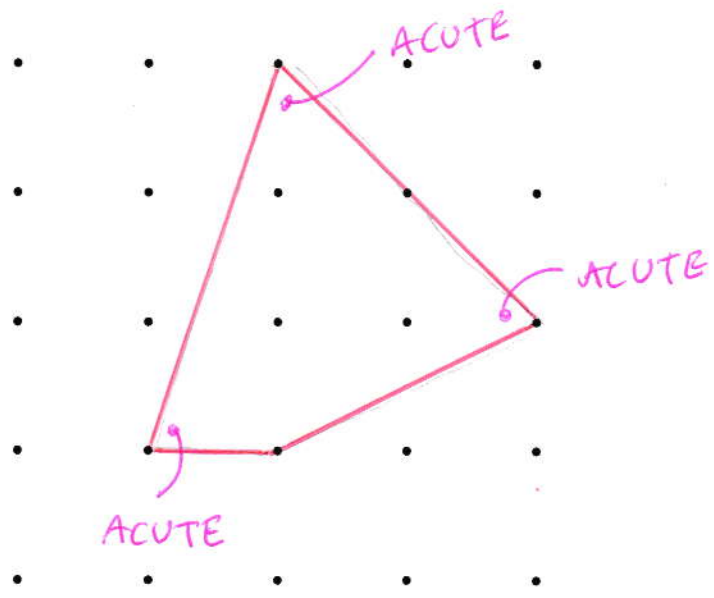
[ACCEPT 8.4 cm]

[1 mark]

6

[2016S]

Join dots on the grid to make a quadrilateral that has **3 acute** angles.



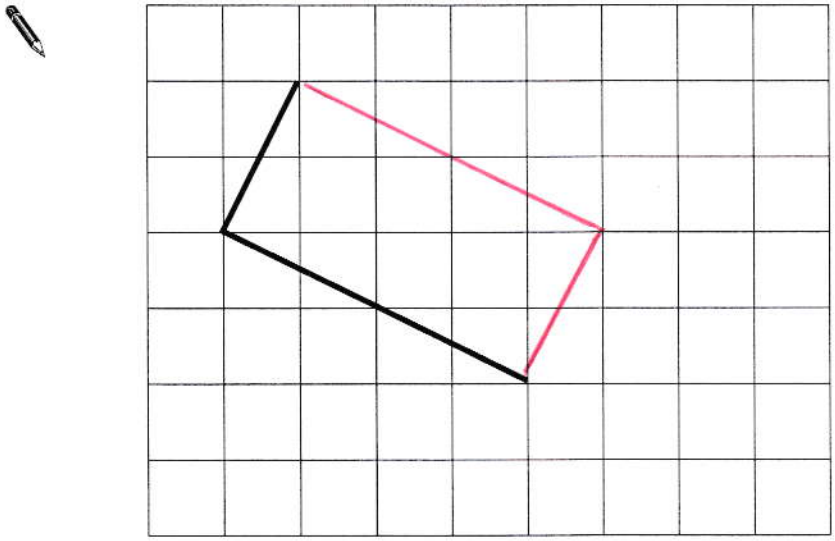
[THERE ARE OTHER POSSIBILITIES]

[1 mark]

7 Draw **two more straight lines** to make a rectangle.

[2001]

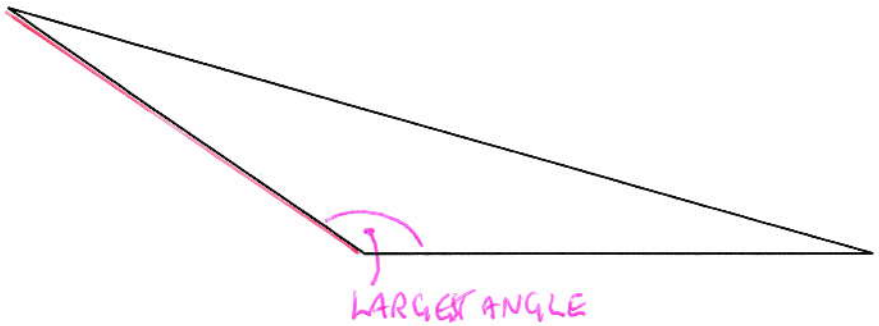
Use a ruler.



[1 mark]

8 Here is a triangle.

[2016S]



Measure the shortest side accurately, in centimetres.

5.7 cm

Measure the largest angle.

146° °

[ACCEPT 145 - 147°]

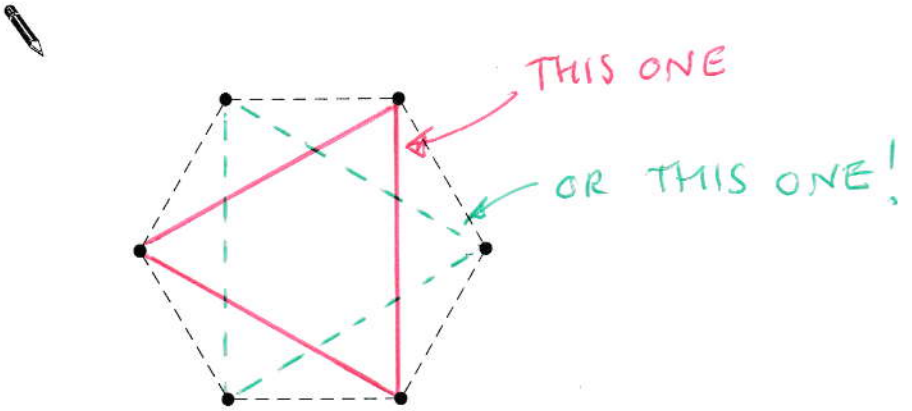
[2 marks]

9 Here is a regular hexagon.

[2004]

Join three of the dots to make an **equilateral** triangle.

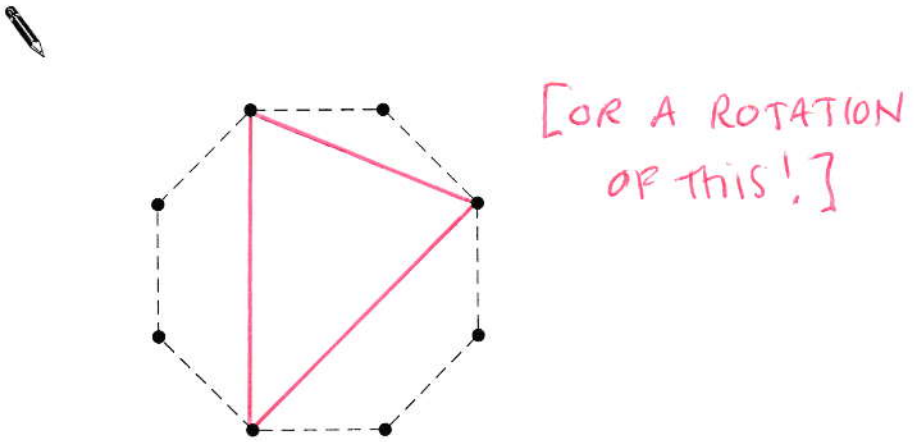
Use a ruler.



Here is a regular octagon.

Join three of the dots to make an **isosceles** triangle.

Use a ruler.



[2 marks]

10 Here are four lines: A, B, C and D.

[2013]

A 8.5

B 7.5

C 9.5

D 8.5

Which two lines have a total length of 18cm?

A and C

[OR D AND C]

Draw a straight line that is 3 centimetres longer than line **B**.

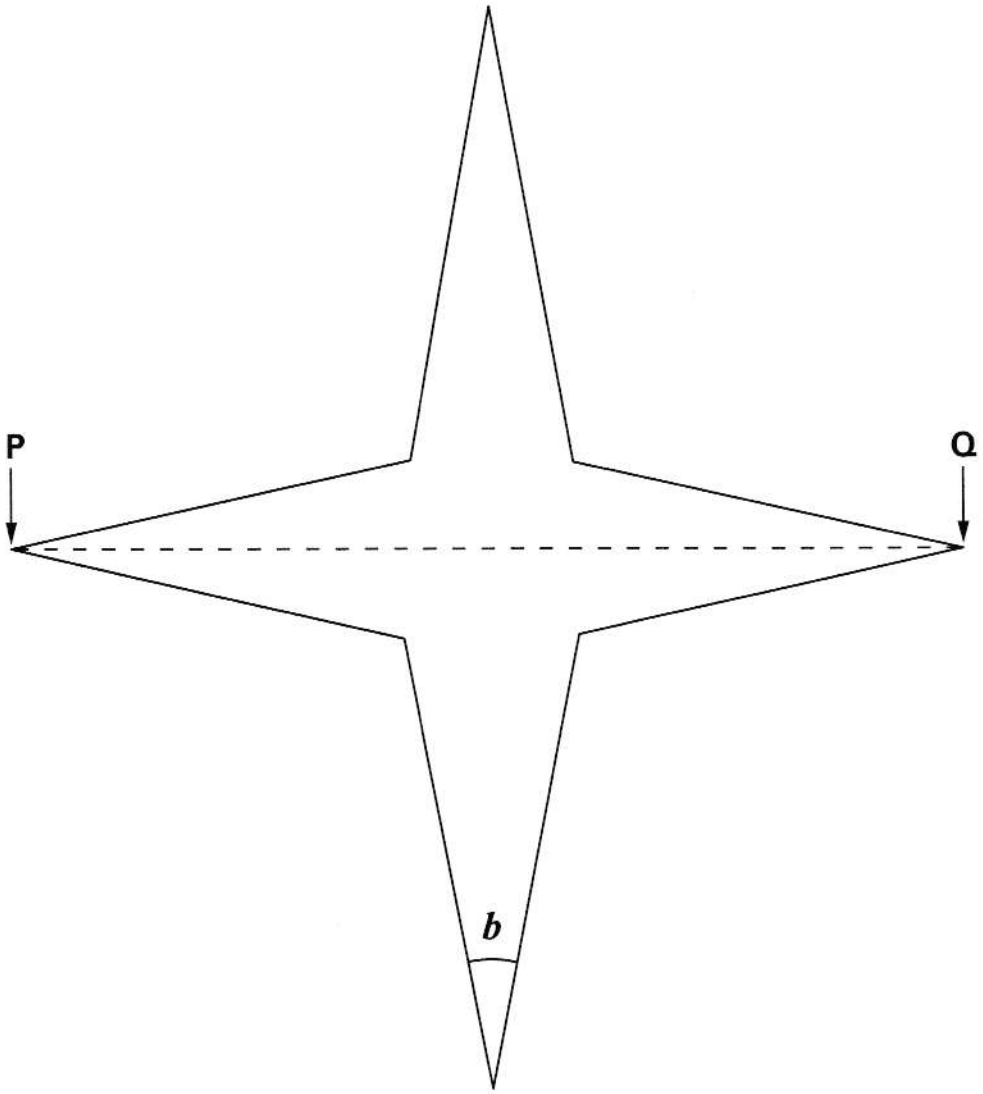
Use a ruler.

10.5 cm!

[2 marks]

11 Look at this star.

[2005]



Use a ruler to measure **accurately** the **width** of the star, from **P** to **Q**.

Give your answer in **millimetres**.

130 mm

[ACCEPT 131 mm]

Use a protractor (angle measurer) to measure **angle *b***.

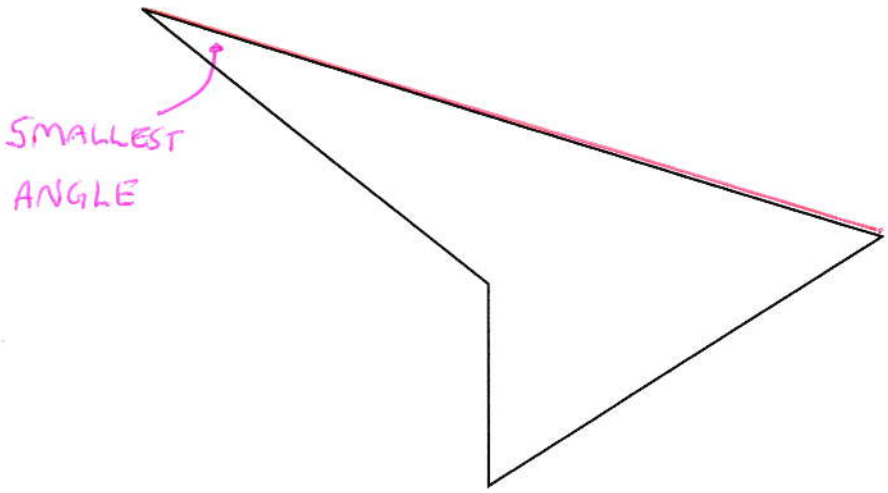
22 °

[ACCEPT 23°]

[2 marks]

12

[2001]



Measure accurately the **longest side** of this shape.

Give your answer in millimetres.

108 mm

[ACCEPT 107 - 109]

Measure accurately the **smallest angle** in the shape.

Use a protractor (angle measurer).

22 °

[2 marks]

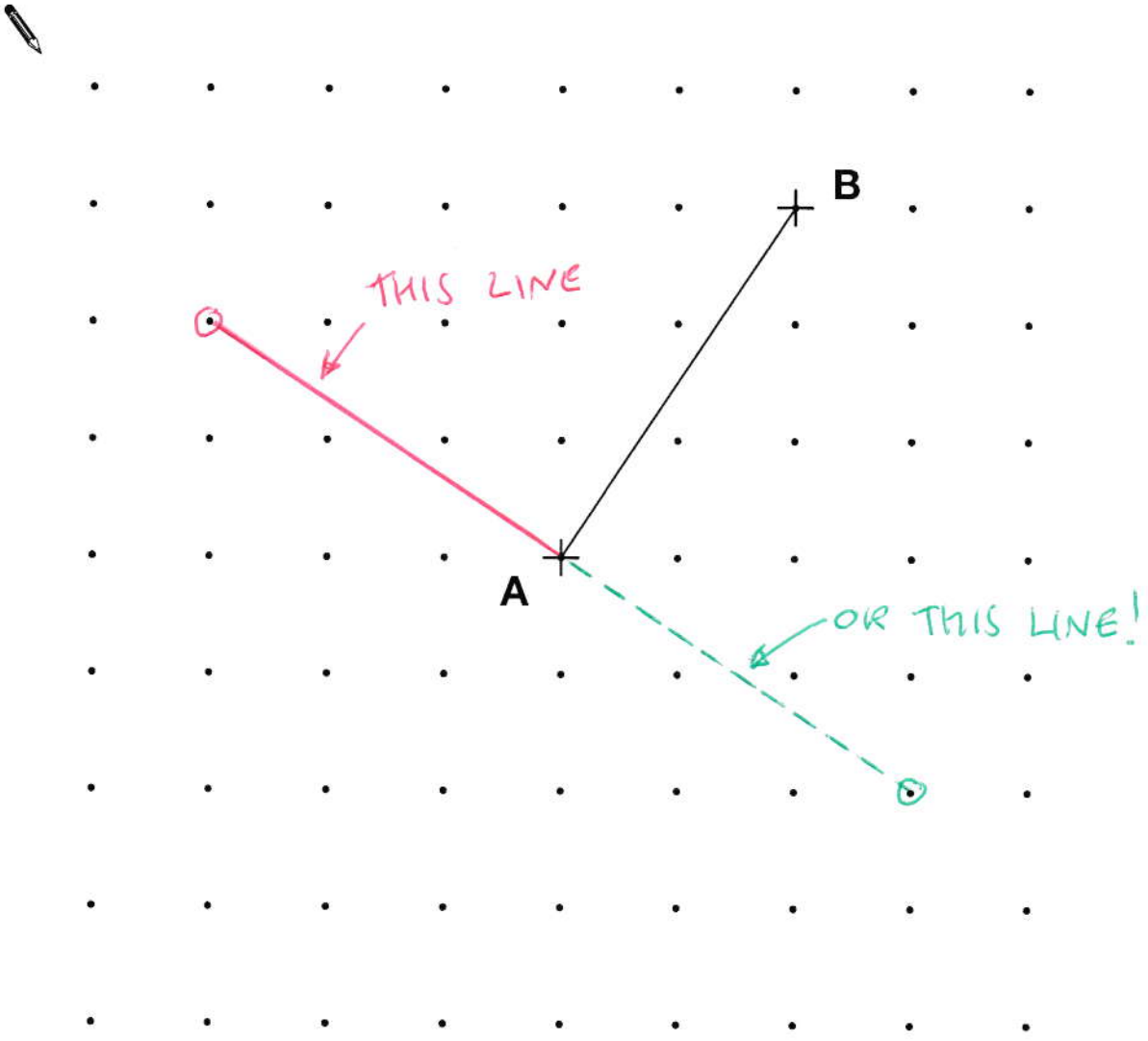
13 Here is a grid of dots.

[2010]

Point **A** and point **B** are joined by a straight line.

Draw a line to join point **A** to another dot on the grid so that the two lines make a right angle.

Use a ruler.



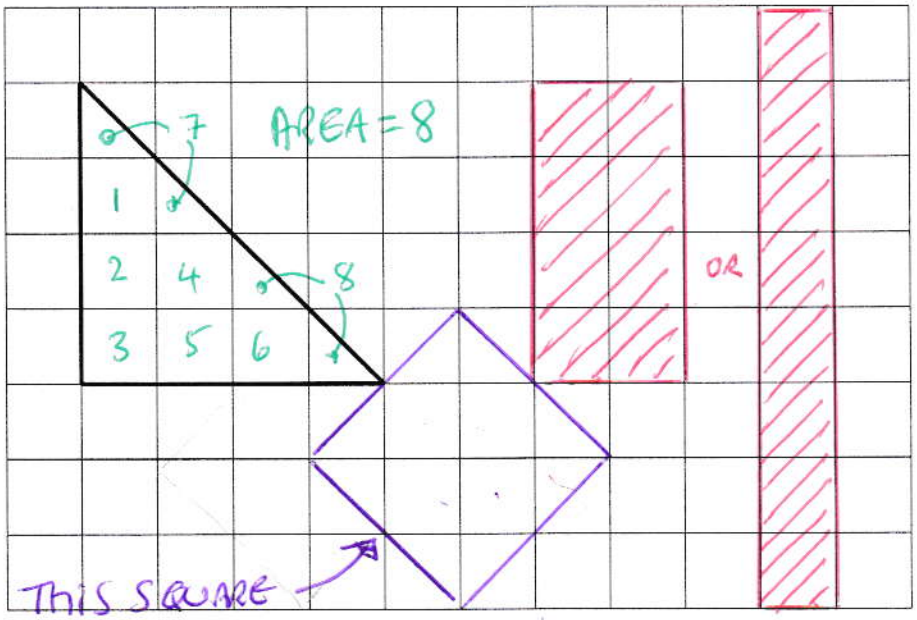
[1 mark]

14 Here is a triangle drawn on a square grid.

[2006]

Draw a **rectangle** on the grid with the **same area** as the triangle.

Use a ruler.

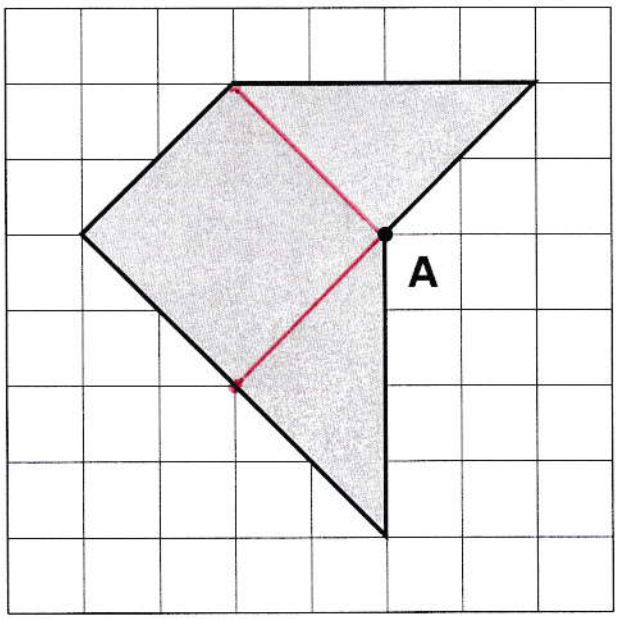


[OR 90° ROTATIONS OF THESE]

[1 mark]

15 Draw **two straight lines** from point **A** to divide the shaded shape into a square and two triangles.

[2003]

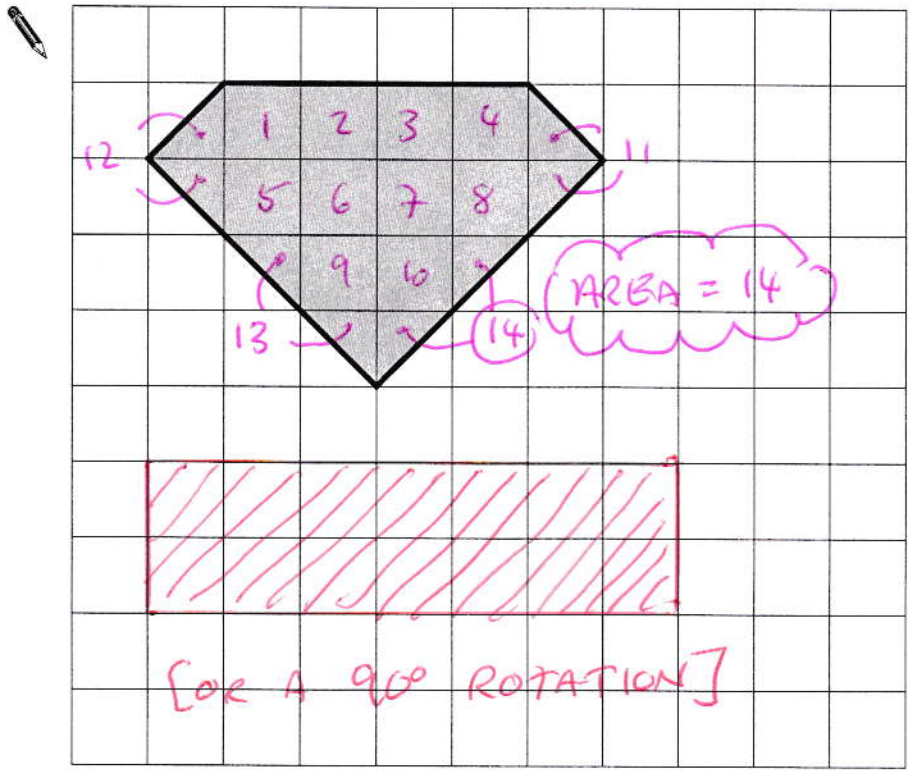


[1 mark]

16 [2000]

On the grid, draw a **rectangle** which has the **same area** as this shaded pentagon.

Use a ruler.



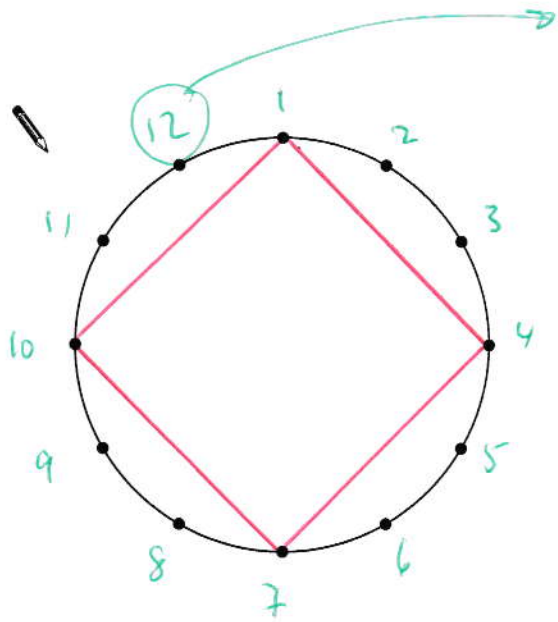
[1 mark]

17 [2009]

The twelve points on this circle are equally spaced.

Join four points to make a **square**.

Use a ruler.



12 [DOTS]
4 [SIDES IN A SQUARE]
= 3 DOTS FOR EACH SIDE!

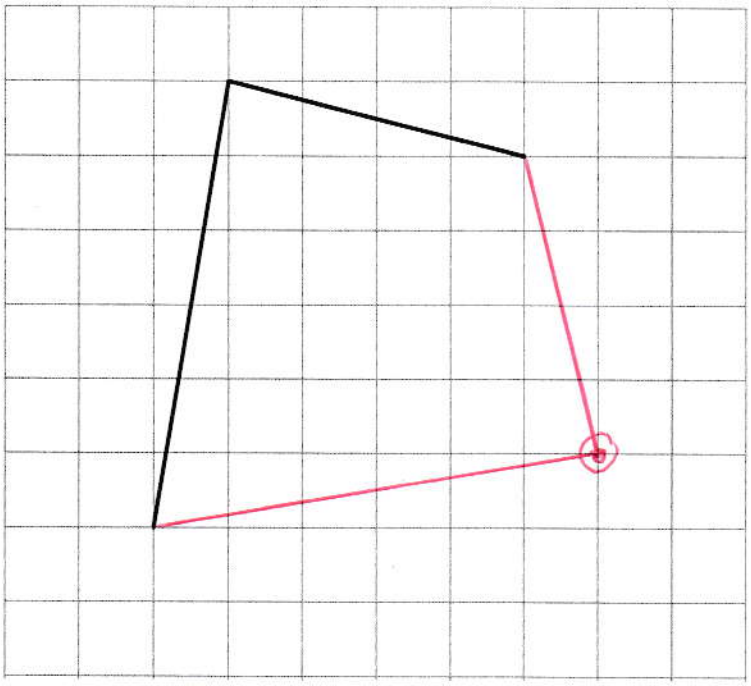
[1 mark]

18 Here is a square grid.

[2011] Two sides of a kite are drawn on the grid.

Complete the kite by drawing the two missing sides.

Use a ruler.



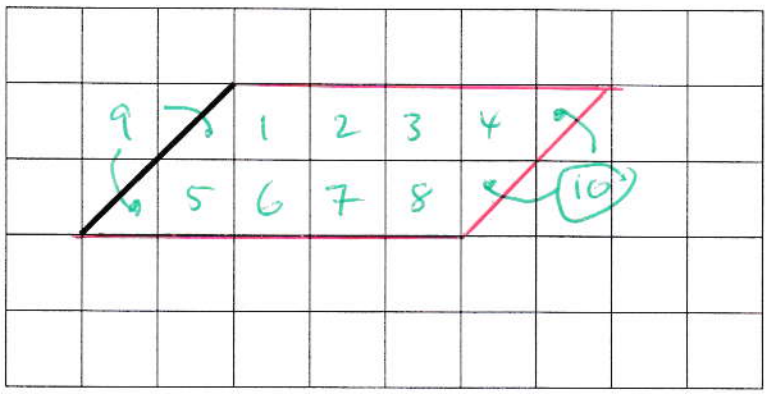
[1 mark]

19 This is a centimetre grid.

[2001]

Draw **3 more lines** to make a **parallelogram** with an **area** of **10cm²**

Use a ruler.

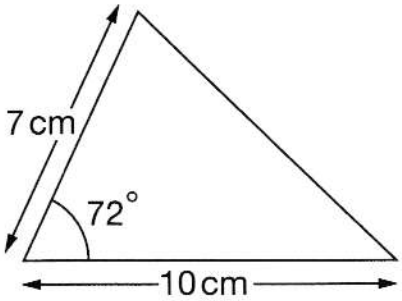


[2 marks]

20 Here is a sketch of a triangle.

[2006]

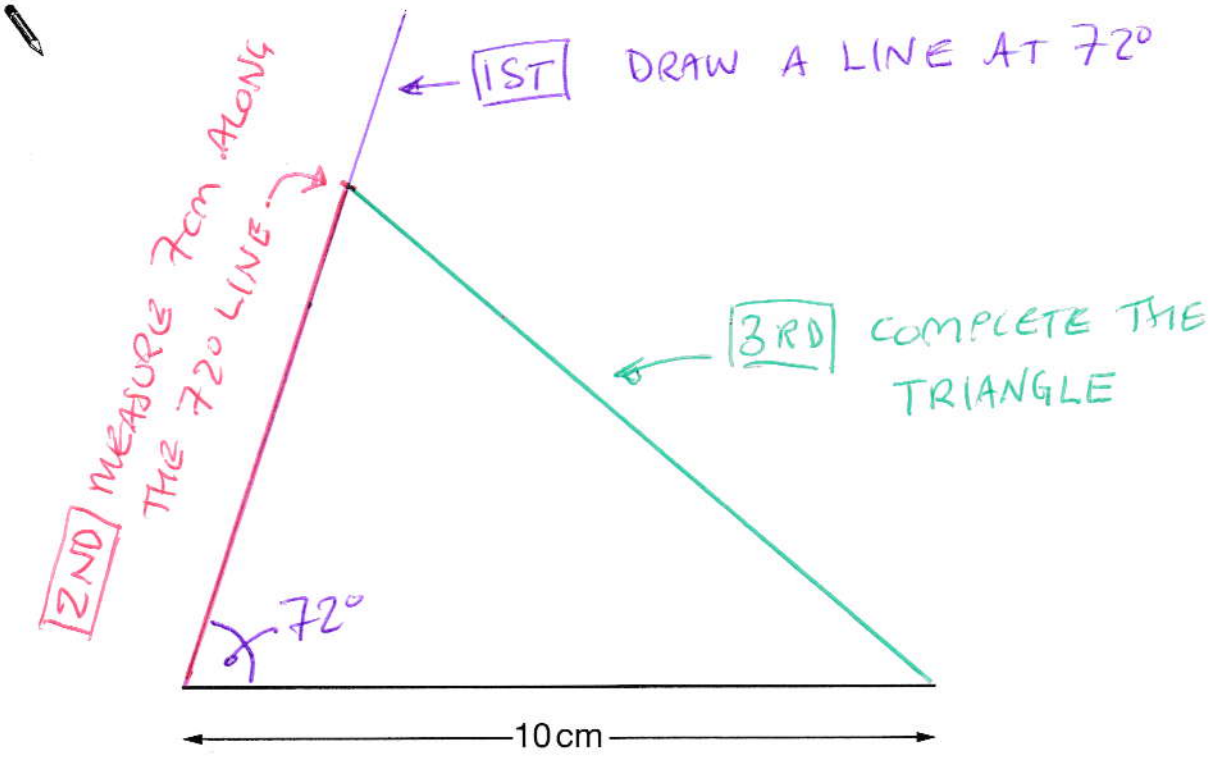
It is not drawn to scale.



Draw the full-size triangle **accurately** below.

Use a protractor (angle measurer) and a ruler.

One line has been drawn for you.

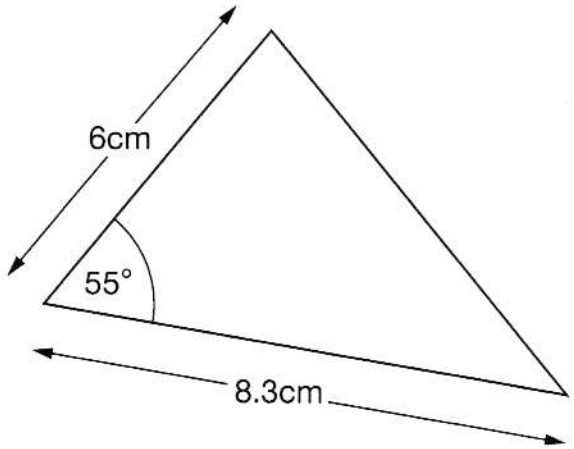


[2 marks]

21 Here is a sketch of a triangle.

[2014]

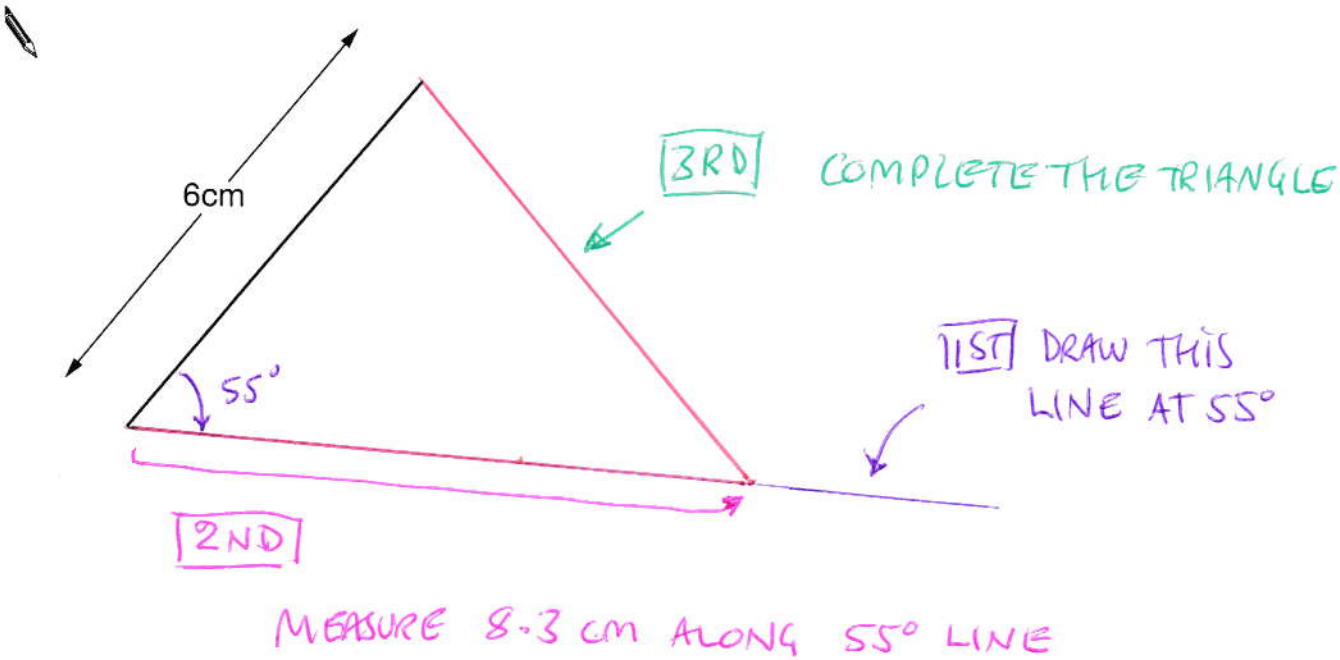
It is not drawn to scale.



Draw the full-size triangle accurately below.

Use a protractor (angle measurer) and a ruler.

One line has been drawn for you.

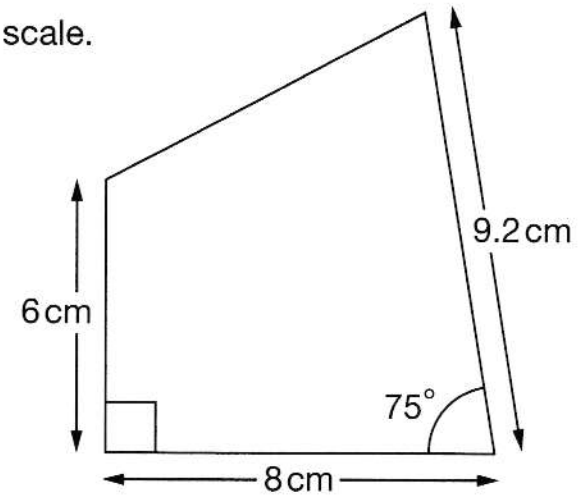


[2 marks]

22 Here is a sketch of a quadrilateral.

[2011]

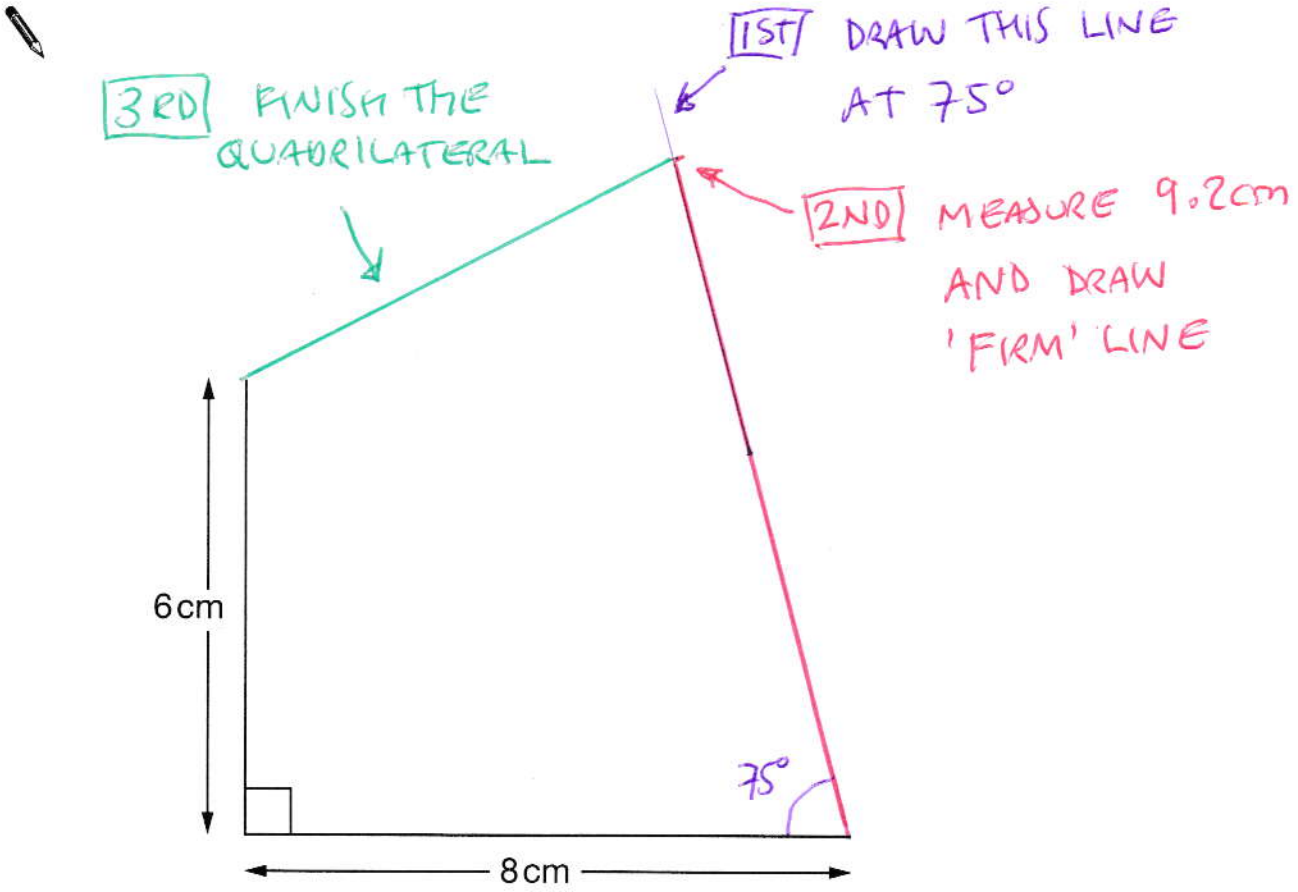
It is not drawn to scale.



Draw the full-size quadrilateral **accurately** below.

Use a protractor (angle measurer) and a ruler.

Two of the lines have been drawn for you.



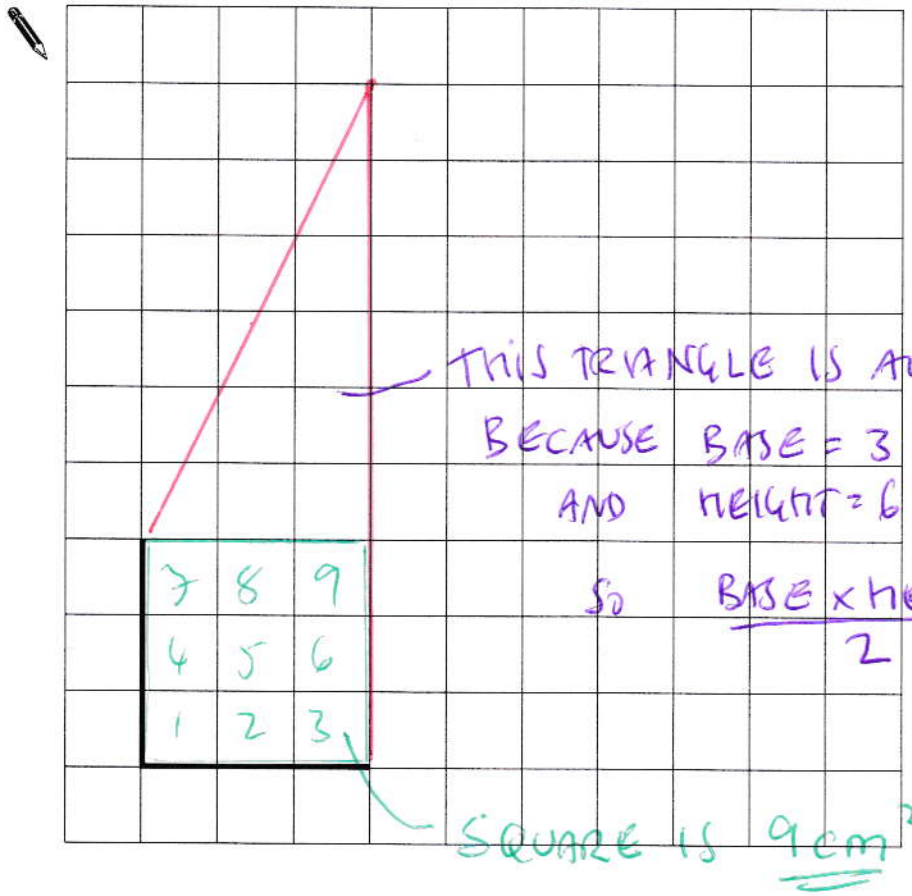
[2 marks]

23 Here is a centimetre grid.

[2002]

Draw **two** more lines to make a **quadrilateral** with an area of **18cm²**

Use a ruler.



[1 mark]

[THERE ARE OTHER POSSIBILITIES TOO!]