Q1.
Work out the diameter of the circle $x^2 + y^2 = 64$

Circle your answer.

8         16         32         128

(Total 1 mark)

Q2.

A circle has equation $x^2 + y^2 = \frac{1}{4}$

Circle the length of its radius.

$\frac{1}{16}$         $\frac{1}{8}$         $\frac{1}{4}$         $\frac{1}{2}$

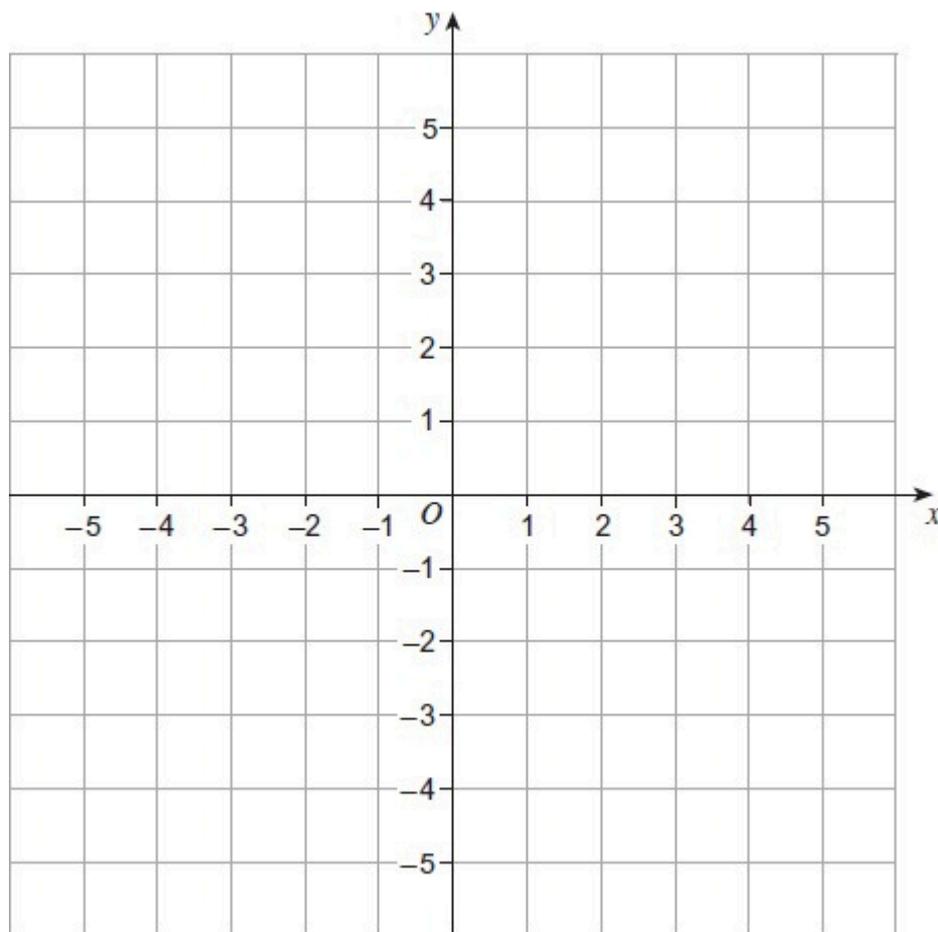(Total 1 mark)

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## Q3.

A circle has equation   $x^2 + y^2 = 4$
Circle the length of its radius.

$$2 \qquad\qquad 4 \qquad\qquad 8 \qquad\qquad 16$$

(Total 1 mark)

## Q4.

(a)    Draw the locus of all points on the grid which are 4 units from (0, 0)



(1)

(b)    Write down the equation of this locus.

Answer _____

(1)

(Total 2 marks)

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Q5.

(a) What is the equation of a circle with centre (0, 0) and diameter 6 units?
Circle your answer.

$x^2 + y^2 = 3$ $x^2 + y^2 = 6$ $x^2 + y^2 = 9$ $x^2 + y^2 = 36$

(1)

(b) Which of these points lie on the circumference of the circle $x^2 + y^2 = 25$?
Circle your answer.

(−3, 4) (6.25, 6.25) (9, 16) (−1, 12)

(1)

(c) Circle True (T) or False (F) for each statement.

| | | |
|---|---|---|
| The centre of the circle $x^2 + y^2 = 25$ is (0, 0) | T | F |
| The equation of the tangent to the circle $x^2 + y^2 = 25$ at the point (5, 0) is $y = 5$ | T | F |
| The equation of a circle and the equation of a straight line can have 0, 1 or 2 solutions if solved simultaneously | T | F |

(2)
(Total 4 marks)

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