

Equation of a Circle *fluency*

ANSWERS



Write the radius of the circle

1 $x^2 + y^2 = 49$ *7* 2 $x^2 + y^2 = 100$ *10* 3 $x^2 + y^2 = 9$ *3*

4 $x^2 + y^2 = 20$ *$2\sqrt{5}$* 5 $x^2 + y^2 = 6.25$ *2.5* 6 $x^2 + y^2 = 12$ *$2\sqrt{3}$*



Write the equation of the circle with centre (0, 0) and the radius given

7 *5* $x^2 + y^2 = 25$ 8 *1* $x^2 + y^2 = 1$ 9 *12* $x^2 + y^2 = 144$

10 *2.5* $x^2 + y^2 = 6.25$ 11 $\sqrt{7}$ $x^2 + y^2 = 7$ 12 $2\sqrt{3}$ $x^2 + y^2 = 12$



Is the point on the circle? Write yes or no.

13 (3, 4) on $x^2 + y^2 = 25$ *yes* 14 (5, 12) on $x^2 + y^2 = 169$ *yes*

15 (2, 3) on $x^2 + y^2 = 16$ *no* 16 (-6, 8) on $x^2 + y^2 = 100$ *yes*

17 (1, 1) on $x^2 + y^2 = 2$ *yes* 18 (4, -4) on $x^2 + y^2 = 30$ *no*



Find the missing coordinate. It is positive.

19 (3, ?) on $x^2 + y^2 = 25$ *4* 20 (?, 5) on $x^2 + y^2 = 169$ *12*

21 (8, ?) on $x^2 + y^2 = 100$ *6* 22 (?, 7) on $x^2 + y^2 = 625$ *24*

23 (0.6, ?) on $x^2 + y^2 = 1$ *0.8* 24 (?, 2) on $x^2 + y^2 = 13$ *3*



Find the equation of the circle with centre (0, 0) through the point

25 (3, 4) $x^2 + y^2 = 25$ 26 (-5, 12) $x^2 + y^2 = 169$

27 (1, 2) $x^2 + y^2 = 5$ 28 (2, -2) $x^2 + y^2 = 8$

29 (6, 8) $x^2 + y^2 = 100$ 30 (-1, -3) $x^2 + y^2 = 10$