MATHS

Circle Worksheet for MAH MCA CET 2025

For students preparing for MCA Entrance Exam.

---

1. Find the equation of a circle with centre at origin and radius 3.
   A. $2x+ 3y = 9$
   B. $x^2 + y^2 = 6$
   C. $x^2 + y^2 = 9$
   D. $x^3 + y^3 = 9$

2. Find the equation of a circle whose centre is $(-3, 1)$ and which pass through the point $(5, 2)$.
   A. $4x^2 - y^2 - 4x - 4y - 50 = 0$
   B. $x^2 + y^2 + 6x - 2y - 55 = 0$
   C. $3x^2 + 2y^2 + x - y - 50 = 0$
   D. $2x^2 + 3y^2 + x - 3y - 80 = 0$

3. Find the equation of the circle with A $(2, -3)$ and B $(-3, 5)$ as end points of its diameter.
   A. $x^2 + y^2 + x - 2y - 21 = 0$
   B. $3x^2 + 2y^2 + x - y - 50 = 0$
   C. $x^2 + y^2 + 2x - 2y - 21 = 0$
   D. $2x^2 + y^2 + 3x - 3y - 13 = 0$

4. Find the equation of circle touching the Y-axis at point $(0, 3)$ and whose Centre is at $(-3, 3)$.
   A. $x^2 + y^2 + 21 = 0$
   B. $x^2 + y^2 + 2x - 2y - 21 = 0$
   C. $x^2 + y^2 + 2x - 2y - 21 = 0$
   D. $x^2 + y^2 + 6x - 6y + 9 = 0$

5. Find the centre and radius of each of the equations $x^2 + y^2 - 2x + 4y - 4 = 0$
   A. $(1, -3)$; 9
   B. $(1, -2)$; 3
   C. $(2, -2)$; 7
   D. $(3, -6)$; 3

6. Find the centre and radius of each of the equations $x^2 + y^2 - 6x - 8y - 24 = 0$
   A. $(3, 4)$; 7
   B. $(4, 4)$; 8
   C. $(5, 6)$; 9
   D. $(7, 3)$; 6

7. Find the centre and radius of each of the equations $4x^2 + 4y^2 - 24x - 8y - 24 = 0$
   A. $(3, 2)$, 8
   B. $(1, 2)$, 6
   C. $(2, 1)$,9
   D. $(3, 1)$, 4

8. Find the equation of the circle passing through the points $(5, 7)$, $(6, 6)$ and $(2, -2)$.
   A. $x2 + y2 - 6x - 6y - 12 = 0$
   B. $2x2 + y2 - x - y - 10 = 0$
   C. $x^2 + y^2 - 4x - 6y - 12 = 0$
   D. $2x2 + 3y2 - 4x - 6y - 12 = 0$

9. The radius of the circle $2x^2 + 2y^2 + 8x + 8y + 4 = 0$
   A. 2 unit
   B. 4 unit
   C. $\sqrt{6}$ unit
   D. 5 unit

10. In a circle with centre O, a 6 cm long chord is at a distance 4 cm from the centre. Find the length of the diameter.
   A. 5 cm
   B. 10 cm
   C. 14 cm
   D. 7 cm

11. If radii of two concentric circles are 4 cm and 5 cm, then the length of each chord of one circle which is tangent to the other circle is
   A. 3 cm

B. 6 cm
C. 9 cm
D. 1 cm

12. The distance between two parallel tangents of a circle of radius 4 cm is
A. 2 cm
B. 4 cm
C. 6 cm
D. 8 cm

13. What is the length of the tangent to the circle $x^2 + y^2 = 9$ from the point (4,0)
A. $\sqrt{7}$ units
B. $\sqrt{6}$ units
C. $\sqrt{11}$ units
D. $\sqrt{17}$ units

14. In a circle with centre O, a 6 cm long chord is at a distance 4 cm from the centre. Find the length of the diameter.
A. 5 cm
B. 10 cm
C. 14 cm
D. 7 cm

15. The radius of the circle $x^2 + y^2 + x + c = 0$ passing through the origin is
A. 1/4
B. 1/2
C. 1
D. 2

16. Find the equation of the circle with centre (0,2) and radius 2.
A. $x^2 + 2y^2 - 18 = 0$
B. $2x - 3y + 18 = 0$
C. $x^2 + y^2 - 4y = 0$
D. $9x + 2y - 28 = 0$

17. Find the centre and radius of the circle.
$(x+5)^2 + (y- 3)^2 = 36$
A. (-3,4), 4
B. (-4,4), 8
C. (-5,3), 6
D. (2,3), 6

Answer Key

1. C	2. B	3. A	4. D	5. B	6. A	7. D	8. C	9. C	10. B
11. B	12. D	13. A	14. B	15. B	16. C	17. C			