

Answers For Circles in Standard Form

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Algebra 2

| # | Problem | Center | Radius |
|----|------------------------------|-------------|-------------------|
| 1 | $x^2 + y^2 = 36$ | (0,0) | 6 |
| 2 | $x^2 + (y-3)^2 = 16$ | (0,3) | 4 |
| 3 | $(x-2)^2 + y^2 = 25$ | (2,0) | 5 |
| 4 | $(x+1)^2 + (y-5)^2 = 49$ | (-1,5) | 7 |
| 5 | $(x-3)^2 + (y+2)^2 = 81$ | (3,-2) | 9 |
| 6 | $(x+5)^2 + (y-1)^2 = 121$ | (-5,1) | 11 |
| 7 | $(x-3/2)^2 + (y+9/2)^2 = 16$ | (3/2, -9/2) | 4 |
| 8 | $(x+1)^2 + (y-1)^2 = 12$ | (-1,1) | $2\sqrt{3} = 3.4$ |
| 9 | $(x-3/4)^2 + (y+1/6)^2 = 8$ | (3/4, -1/6) | $2\sqrt{2} = 2.8$ |
| 10 | $(x+10)^2 + (y-5)^2 = 7$ | (-10,5) | $\sqrt{7} = 2.6$ |

Answers For Circles in General Form

| # | General Form | Standard Form | Center | Radius |
|----|---|-----------------------------|-------------|--------------------|
| 1 | $x^2 + y^2 + 2x + 6y - 6 = 0$ | $(x+1)^2 + (y+3)^2 = 16$ | (-1, -3) | 4 |
| 2 | $x^2 + y^2 + 2x - 10y - 10 = 0$ | $(x+1)^2 + (y-5)^2 = 36$ | (-1, 5) | 6 |
| 3 | $x^2 + y^2 - 9 = 0$ | $(x-0)^2 + (y-0)^2 = 9$ | (0, 0) | 3 |
| 4 | $x^2 + y^2 + 3x - 5y - \frac{1}{2} = 0$ | $(x+3/2)^2 + (y-5/2)^2 = 9$ | (-3/2, 5/2) | 3 |
| 5 | $x^2 + y^2 - 10x + 4y + 20 = 0$ | $(x-5)^2 + (y+2)^2 = 9$ | (5, -2) | 3 |
| 6 | $x^2 + y^2 - 8x - 10y + 1 = 0$ | $(x-4)^2 + (y-5)^2 = 40$ | (4, 5) | $2\sqrt{10} = 6.3$ |
| 7 | $x^2 + y^2 + x - 8y + \frac{1}{4} = 0$ | $(x+1/2)^2 + (y-4)^2 = 16$ | (-1/2, 4) | 4 |
| 8 | $-2y = x^2 + 5x + y^2 + 3 \frac{1}{4}$ | $(x+5/2)^2 + (y+1)^2 = 4$ | (-5/2, -1) | 2 |
| 9 | $-y^2 = x^2 - 16$ | $x^2 + y^2 = 16$ | (0, 0) | 4 |
| 10 | $2x^2 + 2y^2 - 8 = 0$ | $x^2 + y^2 = 4$ | (0, 0) | 2 |

The eccentricity for All circles is 0 (zero). $e = 0$