

Intermediate Algebra Skill

Writing Equations of a Circle Given the Endpoints of a Diameter

Write the center-radius form of the equation of a circle given the two endpoints of a diameter:

1) $(-4, 6), (-6, 18)$

2) $(-3, -6), (-5, -2)$

3) $(17, 2), (3, 10)$

4) $(-11, -1), (-7, -1)$

5) $(11, 13), (-13, -13)$

6) $(-1, -16), (5, -10)$

7) $(-6, 7), (12, -11)$

8) $(10, 19), (0, -5)$

9) $(7, -16), (3, 12)$

10) $(11, 7), (1, -11)$

Answers to Writing Equations of a Circle Given the Endpoints of a Diameter

1) $(x+5)^2 + (y-12)^2 = 37$

2) $(x+4)^2 + (y+4)^2 = 5$

3) $(x-10)^2 + (y-6)^2 = 65$

4) $(x+9)^2 + (y+1)^2 = 4$

5) $(x+1)^2 + y^2 = 313$

6) $(x-2)^2 + (y+13)^2 = 18$

7) $(x-3)^2 + (y+2)^2 = 162$

8) $(x-5)^2 + (y-7)^2 = 169$

9) $(x-5)^2 + (y+2)^2 = 200$

10) $(x-6)^2 + (y+2)^2 = 106$