

Practice 8

Midpoint Formula, Distance Formula, and the Equation of a Circle

Find the distance between the pair of points.

1) $(-3, -1)$ and $(-11, 5)$

A) 100

B) 10

C) 20

D) 11

1) _____

2) $(7, -2)$ and $(5, -6)$

A) $2\sqrt{5}$

B) 12

C) $12\sqrt{3}$

D) 2

2) _____

Find the midpoint of the line segment whose end points are given.

3) $(6, 2)$ and $(4, 7)$

A) $(10, 9)$

B) $(2, -5)$

C) $(5, \frac{9}{2})$

D) $(1, -\frac{5}{2})$

3) _____

4) $(-\frac{3}{4}, \frac{6}{5})$ and $(-\frac{7}{4}, \frac{4}{5})$

A) $(-\frac{5}{2}, 2)$

B) $(-\frac{5}{4}, 1)$

C) $(-\frac{1}{2}, -\frac{1}{5})$

D) $(\frac{1}{2}, \frac{1}{5})$

4) _____

Write the standard form of the equation of the circle with the given center and radius.

5) $(6, -1)$; 3

A) $(x - 1)^2 + (y + 6)^2 = 3$

B) $(x + 1)^2 + (y - 6)^2 = 3$

C) $(x - 6)^2 + (y + 1)^2 = 9$

D) $(x + 6)^2 + (y - 1)^2 = 9$

5) _____

6) $(0, 4)$; 12

A) $x^2 + (y - 4)^2 = 144$

B) $(x + 4)^2 + y^2 = 144$

C) $(x - 4)^2 + y^2 = 144$

D) $x^2 + (y + 4)^2 = 12$

6) _____

Find the center and the radius of the circle.

7) $(x - 1)^2 + (y + 2)^2 = 36$

A) $(1, -2)$, $r = 6$

B) $(-1, 2)$, $r = 36$

C) $(2, -1)$, $r = 36$

D) $(-2, 1)$, $r = 6$

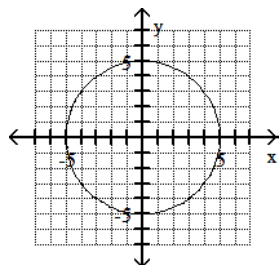
7) _____

Graph the equation and state its domain and range. Use interval notation

8) $x^2 + y^2 = 25$

8) _____

A)



Domain = $(-5, 5)$; Range = $(-5, 5)$

B)

Domain = $(-\sqrt{5}, \sqrt{5})$; Range = $(-\sqrt{5}, \sqrt{5})$

Answer Key

Testname: 8_MIDPOINT FORMULA, DISTANCE FORMULA, AND THE EQUATION OF A CIRCLE

- 1) B
- 2) A
- 3) C
- 4) B
- 5) C
- 6) A
- 7) A
- 8) A