

PRACTICE TEST 7

CHAPTER 13

NAME _____

TEST FORM H

CLASS _____ SCORE _____ GRADE _____

Find the distance between each pair of points.

1. $(7,-3)$ and $(-7,1)$

- a) $16\sqrt{17}$ b) $2\sqrt{109}$ c) $6\sqrt{5}$ d) $2\sqrt{53}$

2. $(1,-a)$ and $(-1,a)$

- a) $2\sqrt{1+a^2}$ b) $2\sqrt{a}$ c) $\sqrt{2a}$ d) $2\sqrt{4+a^2}$

Find the midpoint of the segment with the given endpoints.

3. $(8,-2)$ and $(-8,1)$

- a) $(0,-0.5)$ b) $(-1,0)$ c) $(0.5,-1.5)$ d) $(0,-1)$

4. $(5,-a)$ and $(-1,a)$

- a) $(0,a)$ b) $(2,0)$ c) $(0,2)$ d) $(0,0)$

Find the center and the radius of each circle.

5. $(x+7)^2 + (y-6)^2 = 16$

- a) $(-7,7); 3$ b) $(7,-6); 4$
 c) $(7,-7); 3$ d) $(-7,6); 4$

6. $x^2 + y^2 + 8x - 4y + 2 = 0$

- a) $(4,1); 4$ b) $(-4,2); 3\sqrt{2}$
 c) $(4,-2); 3\sqrt{2}$ d) $(4,-1); 4$

ANSWERS

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

TEST FORM H

ANSWERS

7. _____

Classify the equation as a circle, an ellipse, a parabola, or a hyperbola.

7. $x^2 + y^2 + 6x + 4y + 4 = 0$

- a) ellipse b) parabola c) circle d) hyperbola

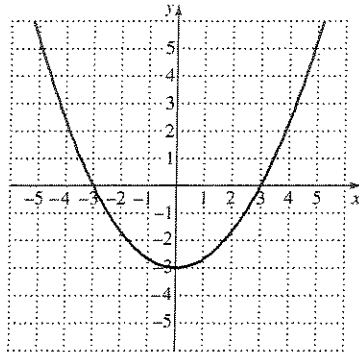
8. $y = x^2 + 6x + 6$

- a) ellipse b) circle c) hyperbola d) parabola

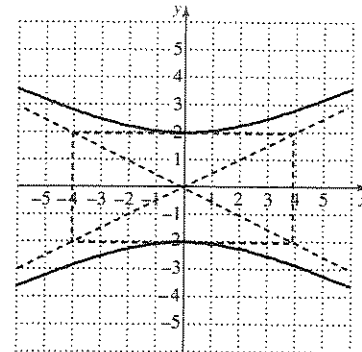
8. _____

9. Which is the graph of $\frac{y^2}{4} - \frac{x^2}{9} = 1$?

a)

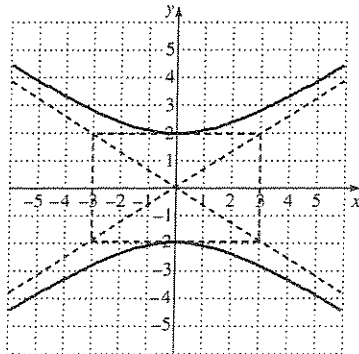


b)

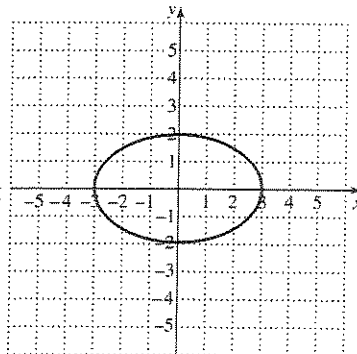


9. _____

c)



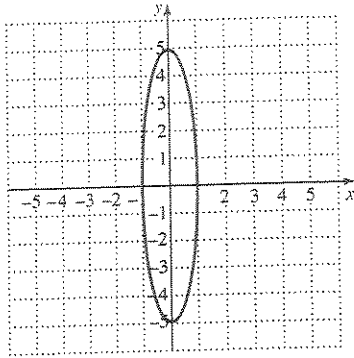
d)



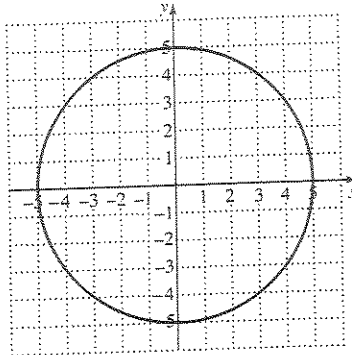
TEST FORM H

10. Which is the graph of $25x^2 + 4y^2 = 100$?

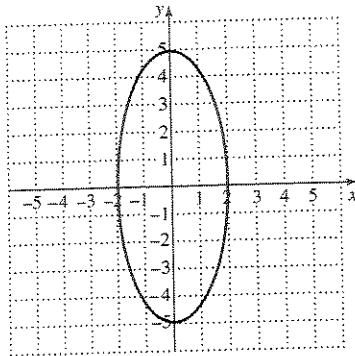
a)



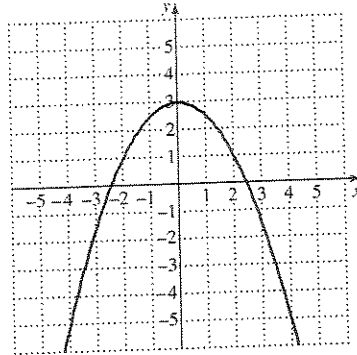
b)



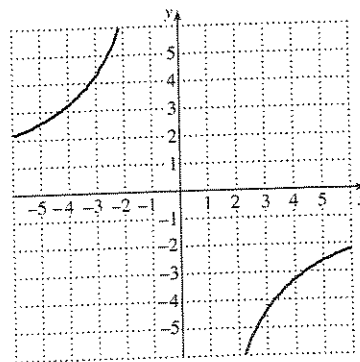
c)



d)



11. Which equation corresponds to the graph at right?



a) $\frac{y^2}{16} - \frac{x^2}{4} = 1$

b) $\frac{x^2}{4} - \frac{y^2}{16} = 1$

c) $xy = -4$

d) $xy = -13$

ANSWERS

10. _____

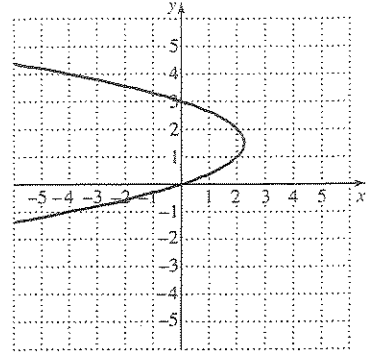
11. _____

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12. _____

12. Which equation corresponds to the graph at right?



13. _____

- a) $y = x^2 - 3x$
- b) $y = x^2 + 3x$
- c) $x = -y^2 - 3y$
- d) $x = -y^2 + 3y$

14. _____

13. Find one solution to the system $\frac{x^2}{16} + \frac{y^2}{4} = 1,$
 $2x + 4y = 8.$

- a) (2,0)
- b) (0,4)
- c) (0,5)
- d) (4,0)

14. Find one solution to the system $x^2 + y^2 = 9,$
 $\frac{x^2}{9} - \frac{y^2}{2} = 1.$

- a) (2,0)
- b) (0,3)
- c) (0,-2)
- d) (-3,0)

TEST FORM H

15. A rectangle with diagonal of length $\sqrt{65}$ has an area of 28.
Find the dimensions of the rectangle.
a) 7 by 4 b) 24 by 3 c) 7 by 2 d) 12 by 3

16. Two squares are such that the sum of their areas is 12 m^2 and the difference of their areas is 4 m^2 . Find the length of a side of each square.
a) $\sqrt{5} \text{ m}$, $\sqrt{2} \text{ m}$ b) $\sqrt{2} \text{ m}$, 5 m
c) $2\sqrt{2} \text{ m}$, 2 m d) $2\sqrt{5} \text{ m}$, $2\sqrt{2} \text{ m}$

17. A rectangle has a diagonal of length 29 m and a perimeter of 82 m. Find the larger dimension of the rectangle.
a) 20 m b) 12 m c) 21 m d) 9 m

ANSWERS

15. _____

16. _____

17. _____

Chapter 13, Test Form H

1. d 2. a 3. a 4. b 5. d 6. b 7. c 8. d 9. c 10. c 11. d 12. d 13. d
14. d 15. a 16. c 17. c