Review Material - March 2020

Date_____ Period____

Identify the center and radius of each.

1) $(x-11)^2+(y-12)^2=25$

2) $(x+9)^2+(y-8)^2=9$

Use the information provided to write the standard form equation of each circle.

3) Center: $(6, -1)$
Radius: 11

4) Center: $(-5, -4)$
Radius: 7

5) Center: $(9, -9)$
Point on Circle: $(6, -11)$

6) Center: $(0, 8)$
Point on Circle: $(0, -3)$

7) $x^2+y^2-8x+28y+208=0$

8) $x^2+y^2-2x+26y+145=0$

Use the function to answer question #10.

9) $g(x) = \begin{cases} \dfrac{1}{x+3}, & x < -4 \\ -2, & -4 \le x \le 0 \\ (x-1)^3, & x > 0 \end{cases}$

Evaluate.

10) (a) $f(0)$ (b) $f(-6)$ (c) $f(4)$ (d) $f(-4)$

Use the function to answer question #12.

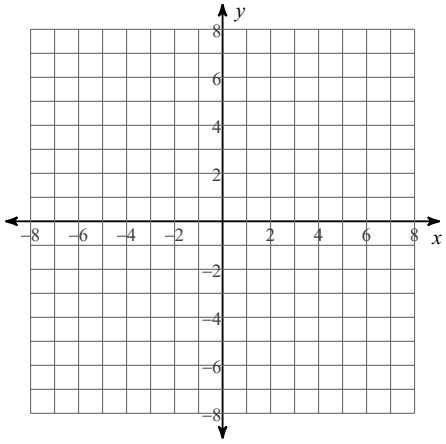
11) $f(x) = \begin{cases} x, & x < -2 \\ |x| + 1, & -2 \le x < 2 \\ (x-3)^2, & x \ge 2 \end{cases}$

Evaluate.

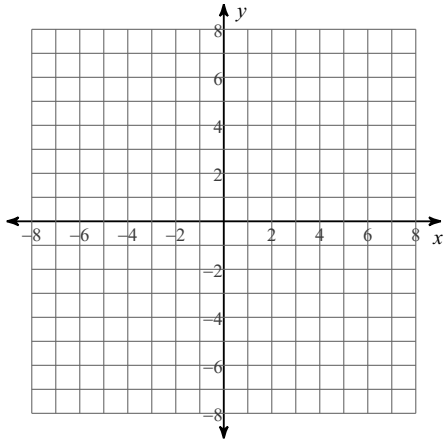
12) (a) $f(4)$ (b) $f(-2)$ (c) $f(-5)$ (d) $f(2)$

Sketch the graph of each function.

13) $f(x) = \begin{cases} |x+4|, & x \le -3 \\ |x+3|, & -3 < x \le 2 \\ -1, & x > 2 \end{cases}$

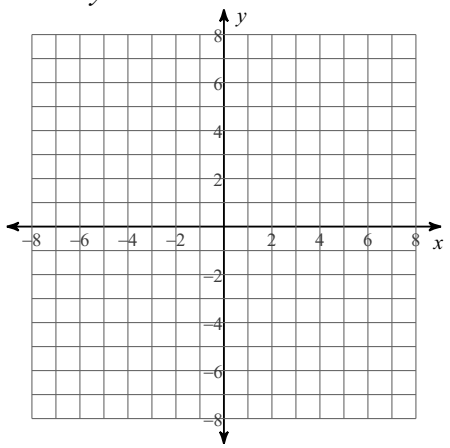


14) $g(x) = \begin{cases} |x-1|, & x \le -3 \\ -2|x|, & -3 < x < 2 \\ -x+3, & x \ge 2 \end{cases}$

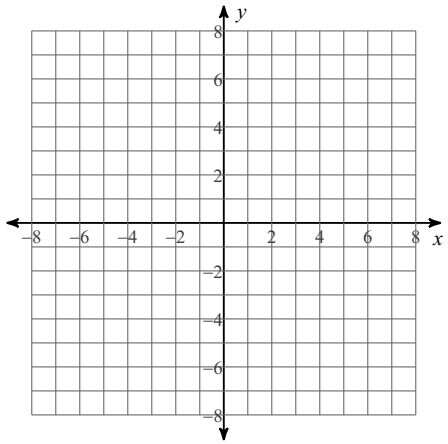


Graph the following functions using a table of values. Find the x- and y-intercept(s) and write them as ordered pairs.

15) $4x + 3y = 15$



16) $y = -x^2 + 4x - 3$



17) $y = \left|x - 4\right| + 1$