NAME : $\qquad$

Homework 8.3 due Mon 4/26 (no attachments necessary)

CLASS: $\qquad$
DATE: $\qquad$

17 Questions
1.

a) $y \leq 0$
b) $y \geq 0$
c) $x \leq 0$
d) $x \geq 0$
2.

a) $y \leq 0$
c) $x<0$
b) $y \geq 0$
d) $x>0$

What is the domain of decrease for the function shown?
3.

a) $y \leq 0$
c) $x<0$
b) $y \geq 0$d) $x>0$
4. Which answer choice describes $y=-3 x^{2}+7 x-2$ accurately?

a) opens up with a maximum
c) opens down with a maximum
b) opens up with a minimum
d) opens down with a minimum
5. What are two other terms for zeros?
a) $y$-intercepts
b) roots
c) vertex
d) x-intercepts
6.

a) $(0,5)$
b) $(-2,1)$
c) $(0,0)$
d) $(5,0)$

What is the y-intercept of this function?

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

What are the x-intercepts?
8. What form is the equation in and which point is identifiable with this form? $y=2 x^{2}-8 x+7$
a) Standard
b) Vertex
c) Factoredd) $(0,7)$e) $(7,0)$
9. Which form is demonstrated in this function and what point is identifiable with this form? $y=-3(x-5)^{2}+7$ in?
a) Standard
b) Vertexc) Factoredd) $(0,7)$e) $(5,7)$
10. What form is this quadratic function in and what points are identifiable in this form? $f(x)=2(x-5)(x+1)$a) Factoredb) Vertexc) $(5,0)$ and $(-1,0)$d) $(10,0)$ and $(-2,0)$e) Standard
11.

$$
f(x)=-\frac{1}{4}(x-1)^{2}+4
$$

a) (-1, 4); opens up
b) $(-1,4)$; opens down
c) $(1,4)$; opens up
d) $(1,4)$; opens down
12. A parabola has a vertex at $(-3,2)$. Where is the axis of symmetry?
a) $y=-2$
b) $x=3$
c) $x=-3$
d) $y=2$
13. $y=2 x^{2}+8 x-5$; the axis of symmetry is found using $x=-b / 2 a$. What is the axis of symmetry?
a) $x=8$
b) $x=4$
c) $x=-2$
d) $x=-4$
14. $y=2 x^{2}+8 x-5$; If $x=-2$, substitute into the equation to determine $y$
a) - 31
b) -13
C) 11
d) 12

a) $y \leq 2$
b) $y \geq 2$
c) $y \leq-2$
d) $y \geq-2$
16. What is another name for a maximum or minimum point of a quadratic function?
a) Ultimate Point
b) Zero
c) Vertexd) Y-intercept
17. Identify all correct statements for this function: $f(x)=-3 x-8$
a) It is a linear function that is increasing
b) It is a linear function that is decreasing
c) It contains the point $(-3,-8)$
d) It contains the point $(0,-8)$

