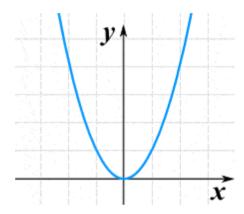
## Homework 8.3 due Mon 4/26 (no attachments necessary)

17 Questions

1.

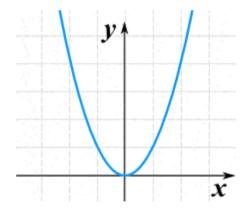


What is the range for the function shown?

- $\Box$  a) y  $\leq$  0
- C) x ≤ 0

- $\Box$  b)  $y \ge 0$
- $\Box$  d)  $x \ge 0$

2.

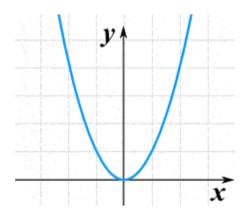


What is the domain of decrease for the function shown?

- $\Box$  a)  $y \le 0$
- ☐ c) x < 0

- $\Box$  b)  $y \ge 0$
- $\Box$  d) x > 0

3.



What is the domain of increase for the function shown?

- $\Box$  a)  $y \le 0$
- C) x < 0</p>

- $\Box$  b)  $y \ge 0$
- $\Box$  d) x > 0
- 4. Which answer choice describes  $y = -3x^2 + 7x 2$  accurately?
- a) opens up with a maximum

☐ b) opens up with a minimum

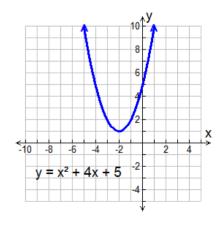
c) opens down with a maximum

d) opens down with a minimum

- 5. What are two other terms for zeros?
- a) y-intercepts
- \_\_\_\_ c) vertex

- ☐ b) roots
- ☐ d) x-intercepts

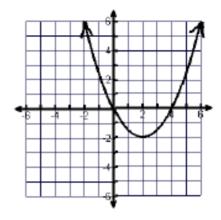
6.



What is the y-intercept of this function?

- a) (0, 5)
- \_ c) (0, 0)

- □ b) (-2, 1)
- ☐ d) (5, 0)



- a) (0, 0)
- ☐ c) (0, 4)

- □ b) (4, 0)
- ☐ d) (2, -2)

☐ b) Vertex

d) (0, 7)

- 8. What form is the equation in and which point is identifiable with this form?y =  $2x^2-8x+7$
- a) Standard
- c) Factored
- ☐ 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) Vertex

c) Factored

☐ d) (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) Factored

☐ b) Vertex

c) (5, 0) and (-1, 0)

☐ d) (10, 0) and (-2, 0)

e) Standard

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

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

 $\Box$  b) x = 3

☐ c) x = -3

- $\Box$  d) y = 2
- 13.  $y = 2x^2 + 8x 5$ ; the axis of symmetry is found using x = -b/2a. What is the axis of symmetry?
- ☐ a) x = 8

□ b) x = 4

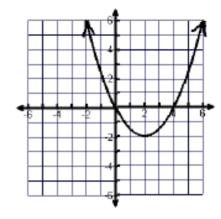
C) x = - 2

- □ d) x = -4
- 14.  $y = 2x^2 + 8x 5$ ; If x = -2, substitute into the equation to determine y
- a) 31

☐ b) - 13

\_\_ c) 11

☐ d) 12



- $\Box$  a) y  $\leq$  2
- C) y ≤ -2

- $\Box$  b)  $y \ge 2$
- $\Box$  d)  $y \ge -2$
- 16. What is another name for a maximum or minimum point of a quadratic function?
- a) Ultimate Point
- c) Vertex

- ☐ b) Zero
- ☐ d) Y-intercept
- Identify all correct statements for this function: f(x) = -3x 8
- a) It is a linear function that is increasing
- c) It contains the point (-3, -8)

- ☐ b) It is a linear function that is decreasing
- d) It contains the point (0, -8)