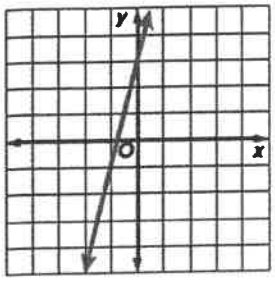
NAME Francis Scott DATE _____ PERIOD _____

Intercepts of Graphs • Paper Practice 3.4

Examples 1 and 2

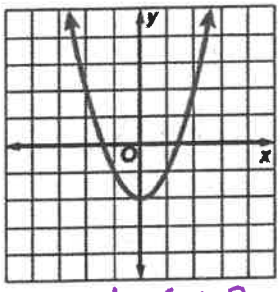
Use the graph to estimate the *x*- and *y*-intercepts of the function and describe where the function is positive and negative.

1.



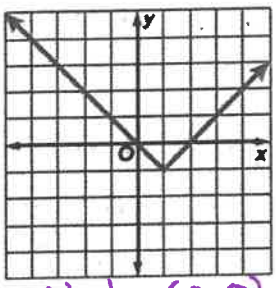
x int: (-0.9,0)
y int: (0,3)
Positive: $x > -0.9$
negative: $x < -0.9$

2.



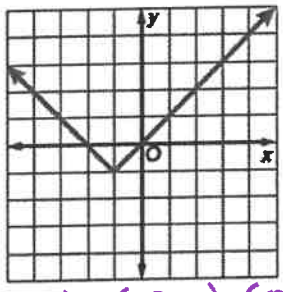
x int: (-1.3,0) (1.3,0)
y int: (0,-2)
positive: $x < -1.3$ $x > 1.3$
negative: $-1.3 < x < 1.3$

3.



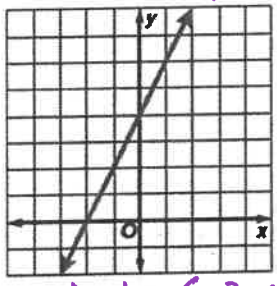
x int: (0,0) and (2,0)
y int: (0,0)
pos: $x < 0$ and $x > 2$
neg: $0 < x < 2$

4.



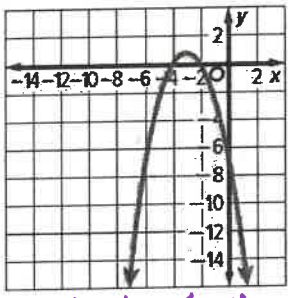
x int: (-2,0) (0,0)
y int: (0,0)
pos: $x < -2$ and $x > 0$
neg: $-2 < x < 0$

5.



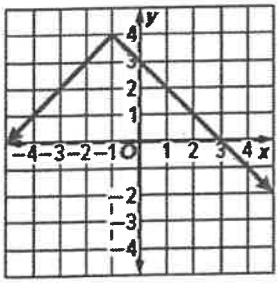
x int: (-2,0)
y int: (0,4)
pos: $x > -2$
neg: $x < -2$

6.



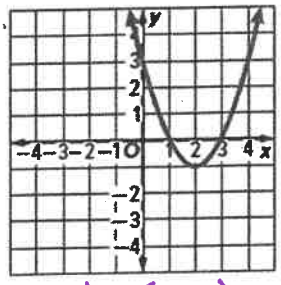
x int: (-4,0) and (-2,0)
y int: (0,-6)
pos: $-4 < 0 < -2$
neg: $x < -4$ and $x > -2$

7.



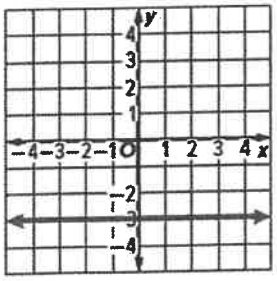
x int: (-5,0) and (3,0)
y=(0,3)
pos: $-5 < x < 3$
neg: $x < -5$ and $x > 3$

8.



x int: (1,0) and (3,0)
y int: (0,3)
pos: $x < 1$ and $x > 3$
neg: $1 < x < 3$

9.

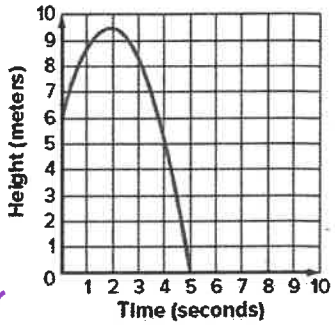


x int: NONE
y int: (0,-3)
pos: Never
neg: Always

NAME _____ DATE _____ PERIOD _____

Example 3

10. FOOTBALL The graph shows the height of a football after being kicked. Use the graph to estimate the *x*- and *y*-intercepts of the function, where the function is positive and negative, and interpret the meanings in the context of the situation.

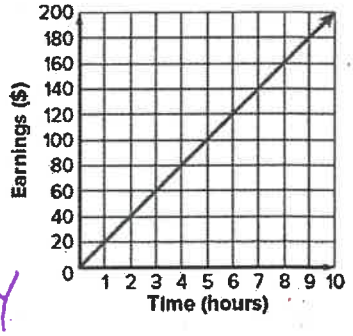


x int: (5,0) The football lands in 5 sec.

y int: (0,6) The football starts/ is kicked from 6m above the ground.

Always Positive because the ball does not go under ground

11. EARNINGS The graph shows the amount of money Ryan earns. Use the graph to estimate the *x*- and *y*-intercepts of the function, where the function is positive and negative, and interpret the meanings in the context of the situation.



x int (0,0) Zero Hours = Zero Money
y int (0,0)

Always Positive – No Negative Money