$2(2x-3y=13)$ → $4x-6y=26$

$3(5x+2y=17)$ → $15x+6y=51$

$\frac{19x}{19} = \frac{77}{19}$

$x=\frac{77}{19}$

$5(\frac{77}{19})+2y=17$

$\frac{385}{19}+2y=17$

$-\frac{385}{19}$ $-\frac{385}{19}$

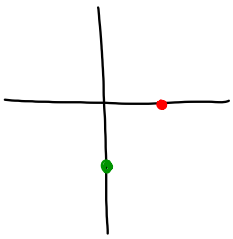
$\frac{2y}{2} = -\frac{62}{19}\div 2$

$(\frac{77}{19}, -\frac{31}{19})$

Oct 1-11:46 AM

Bellwork 10-1-15

1. What is the x-value for every y-intercept? 0 (0, #)
2. What is the y-value for every x-intercept? 0 (#, 0)



Sep 29-9:13 AM

10-1-15

5.2b Properties of Quadratics in Standard Form

$y=ax^2+bx+c$

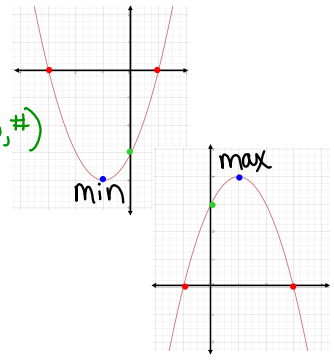
Sep 29-9:15 AM

Vocabulary

Vertex: min/max point

y-int: the point where graph crosses y-axis (0, #)

x-int(s): the point(s) where graph crosses x-axis



Sep 28-2:02 PM

How to Find a y-intercept:

1. Press 2nd
2. Press TRACE
3. Select #1 value
4. Type in 0 and press ENTER

Sep 29-9:16 AM

How to Find an x-intercept:

1. Press 2nd
2. Press TRACE
3. Select #2: zero
4. You should see "Left Bound?"
   Type in an x-value to the left of x-int OR
   Move cursor to the left of x-int and press enter.
5. You should see "Right Bound?"
   Type in an x-value to the right of x-int OR
   Move cursor to the right of vertex and press ENTER
6. You should see "Guess?"
   Type in the x-value for the x-int OR
   Move cursor to the x-int and press ENTER

Sep 29-9:16 AM

Example 1:

$y = -x^2 + 6x - 8$ (A: -1, C: -8)

a. Direction of opening? Down

b. Is the vertex a min or max?

c. Vertex? (3, 1) Vertex

d. Axis of symmetry? $x = 3$ 2nd Trace max Left Enter Rt Enter Enter

e. y-int? (0, -8)

f. x-ints? 2nd Trace Zeros (2, 0) (4, 0)

Sep 29-12:45 PM

Example 2:

$y = 2x^2 - 16x + 30$ (A: 2, C: 30)

a. Direction of opening? Up

b. Is the vertex a min or max?

c. Vertex? (4, -2)

d. Axis of Symmetry? $x = 4$

e. y-int? (0, 30)

f. x-ints? (3, 0) (5, 0)

Sep 29-12:45 PM

Example 3:

$$y = -x^2 - 4x - 8$$

a. Direction of opening?
b. Is the vertex a min or max?
c. Vertex?
d. Axis of Symmetry?
e. y-int?
f. x-ints?

Sep 29-12:45 PM

Example 4:

$$y = x^2 - 8x + 12$$

a. Direction of opening?
b. Is the vertex a min or max?
c. Vertex?
d. Axis of symmetry?
e. y-int?
f. x-ints?

Sep 29-12:45 PM

Example 5:

$$y = x^2 + 4x$$

a. Direction of opening?
b. Is the vertex a min or max?
c. Vertex?
d. Axis of symmetry?
e. y-int?
f. x-ints?

Sep 29-12:45 PM

Conclusion

1. What is a vertex?
2. What is the x-value for every y-int?
3. What is the y-value for every x-int?
4. Questions???

Sep 29-2:19 PM

Assignment:

5.2b Properties of Quadratics in Standard Form

Sep 29-4:29 PM

Sep 30-1:09 PM