Calculator Instructions

Do this **every time** you get the **calculator for the day**.

1. 2^{nd} + 7 1 2
2. 2^{nd} 0 x^{-1} DiagonosticOn enter enter
3. 2^{nd} Window (change) Indpnt to ASK

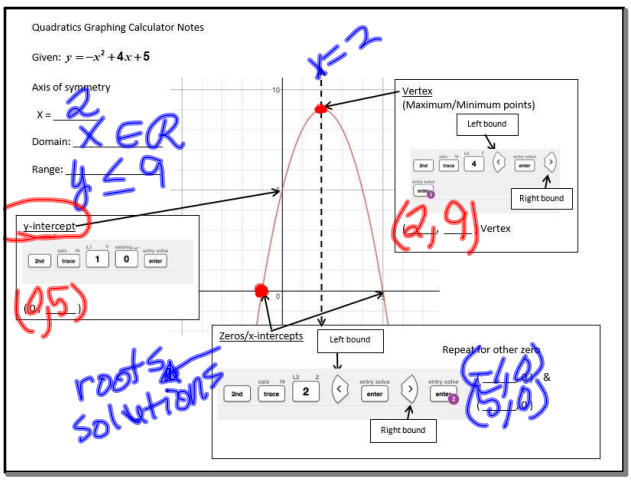
Starter 14 JAN 2019

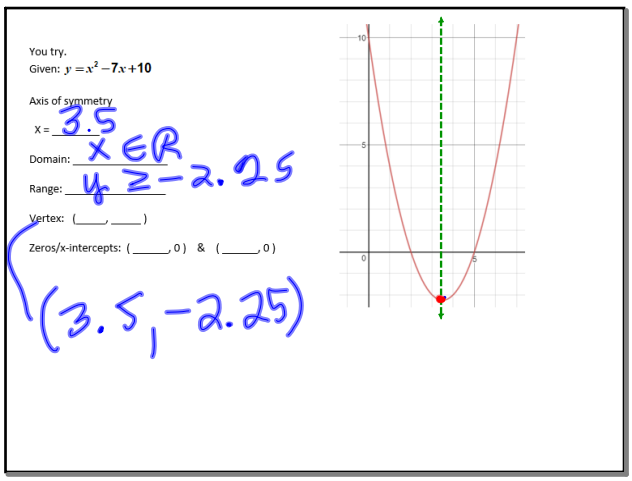
Determine if the graph opens up or down. Determine if the vertex is at a maximum or minimum.

1) $f(x) = 4x^2 - 8x + 5$

2) $y = -\frac{1}{4}x^2 + 10x - 1$

3) Determine if the functions in # 1 & 2 will be thinner or wider than the parent function.

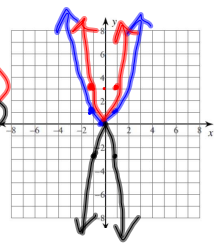




Graphing Quadratic Equations

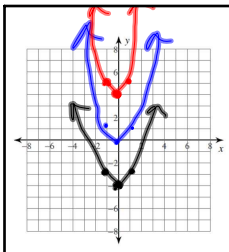
Graph each equation on the same graph.

1) a. $y = x^2$ axis of symmetry $x=0$ vertex $(0,0)$
b. $y = 3x^2$ axis of symmetry $x=0$ vertex $(0,0)$
c. $y = -3x^2$ axis of symmetry $x=0$ vertex $(0,0)$



points on graph

a. $(-1, 1)$; $(1, 1)$
b. $(-1, 3)$; $(1, 3)$
c. $(-1, -3)$; $(1, -3)$

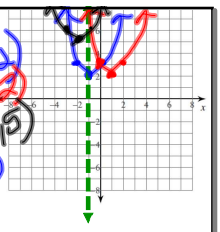


2) a. $y = x^2$ axis of symmetry $x=0$ vertex $(0,0)$
b. $y = x^2 + 4$ axis of symmetry $x=0$ vertex $(0,4)$
c. $y = x^2 - 4$ axis of symmetry $x=0$ vertex $(0,-4)$

points on graph

a. $(-1, 1)$; $(1, 1)$
b. $(-1, 5)$; $(1, 5)$
c. $(-1, -3)$; $(1, -3)$

3) $y = x^2 + 2x + 3$ axis of symmetry $x=-1$ vertex $(-1,2)$
$y = x^2 - 2x + 3$ axis of symmetry $x=1$ vertex $(1,2)$
$y = x^2 + 4x + 9$ axis of symmetry _____ vertex $(-2,5)$



$(-2, 3)$; $(0, 3)$

$(0, 3)$; $(2, 3)$

$(-3, 6)$; $(-1, 6)$