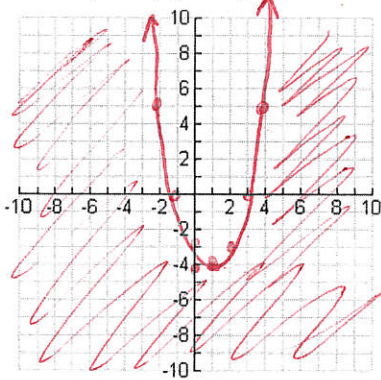


Name: Key

Graphing Graphing Inequalities ws

Find the x-intercept(s) and vertex, then graph.

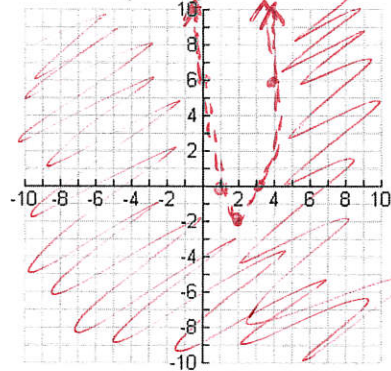
1. $y \leq (x+1)(x-3)$



$\frac{3-1}{2} = 1$
 $(2)(-2)$

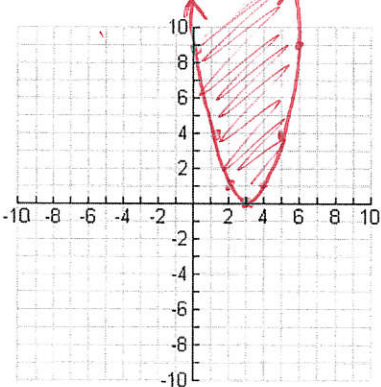
x-intercept(s): $(-1, 0), (3, 0)$
Vertex: $(1, -4)$

2. $y < 2(x-2)^2 - 2$



x-intercept(s): $(1, 0), (3, 0)$
Vertex: $(2, -2)$

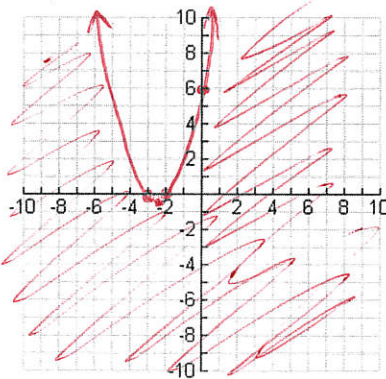
3. $y \geq x^2 - 6x + 9$



$(x-3)(x-3)$

x-intercept(s): $(3, 0)$
Vertex: $(3, 0)$

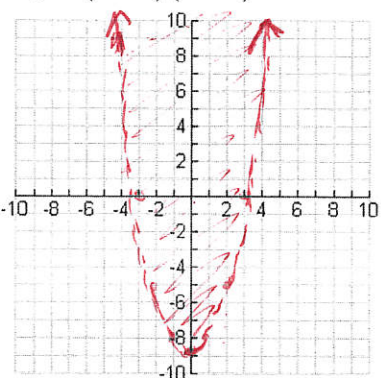
4. $y \leq x^2 + 5x + 6$



$(x+2)(x+3)$
 $-\frac{5}{2(1)} = -\frac{5}{2} = -2.5$

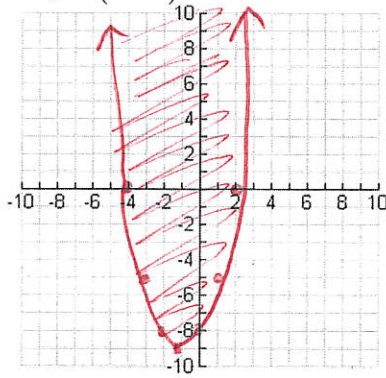
x-intercept(s): $(-2, 0), (-3, 0)$
Vertex: $(-2.5, -2.25)$ or $(-\frac{5}{2}, -\frac{1}{4})$

5. $y > (x-3)(x+3)$



x-intercept(s): $(3, 0), (-3, 0)$
Vertex: $(0, -9)$

6. $y \geq (x+1)^2 - 9$



x-intercept(s): $(-4, 0), (2, 0)$
Vertex: $(-1, -9)$