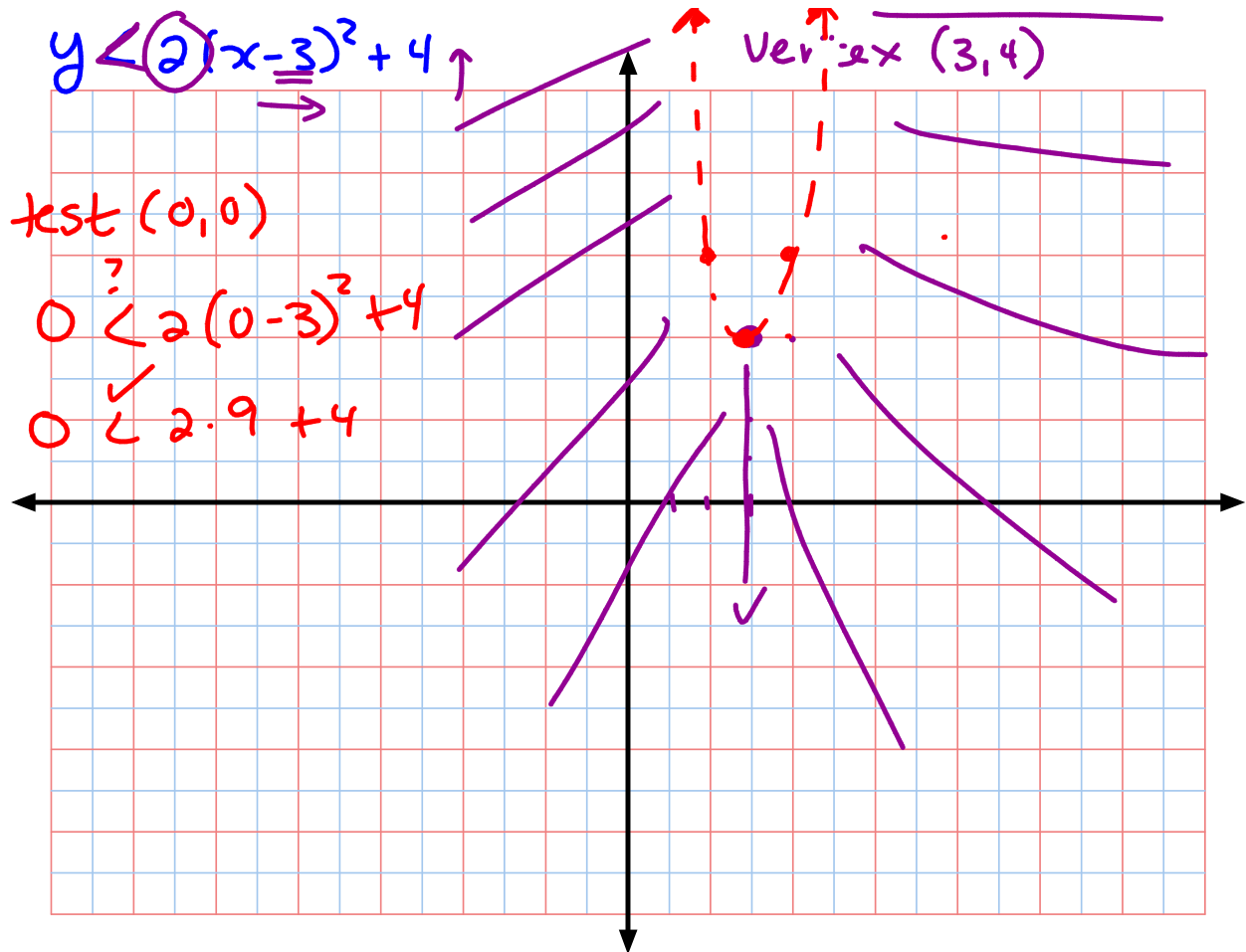


## Quadratic Inequalities in 2 variables

- ① Graph the parabola (using a dotted line if the inequality is  $>$  or  $<$ )  $y < 2(x-3)^2 + 4$
- ② Make an educated guess as to where to shade and use a test point to verify.
- ③ Shade & c'est tout !!



$$y \geq \frac{1}{2}(x+2)^2 - 8$$

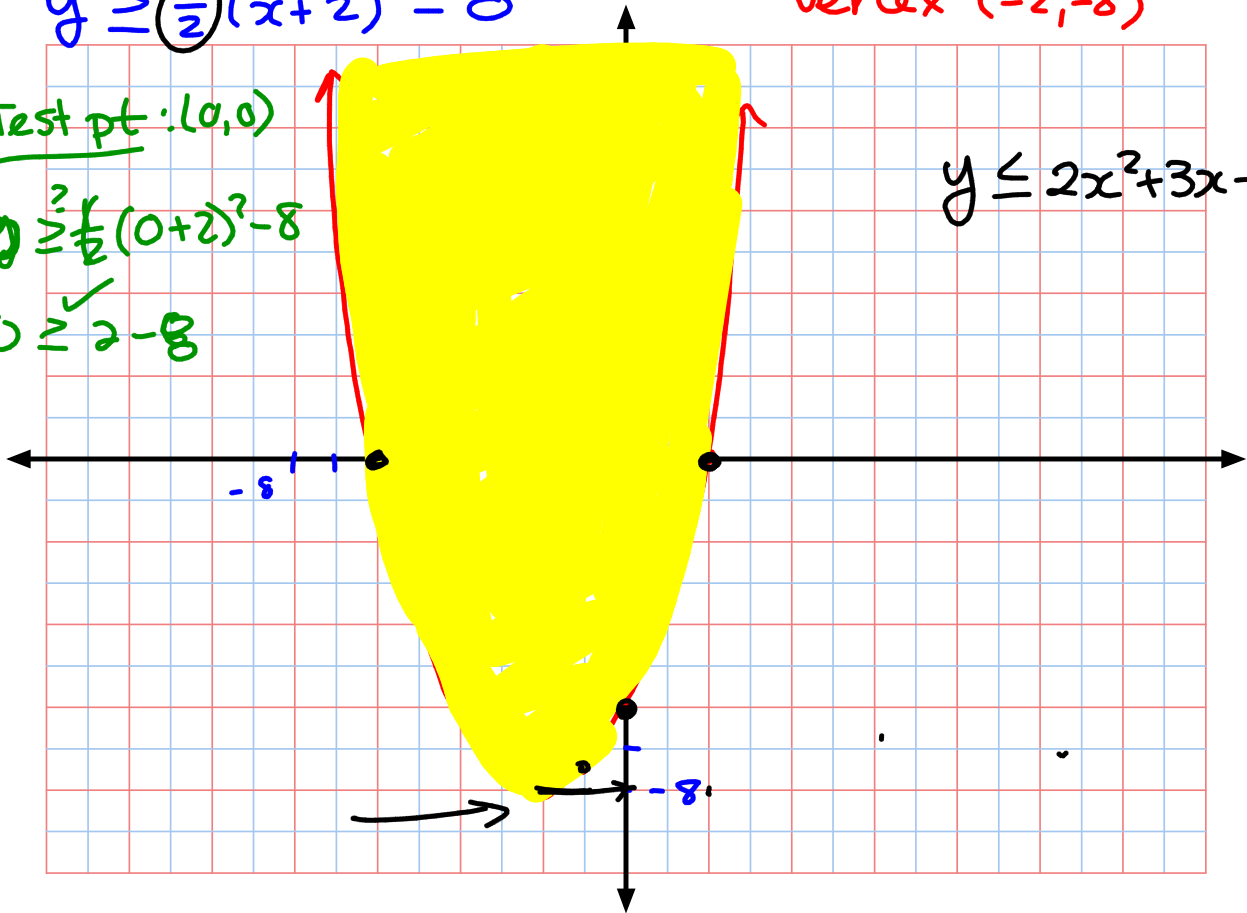
Vertex  $(-2, -8)$

Test pt:  $(0,0)$

$$0 \geq \frac{1}{2}(0+2)^2 - 8$$

$$0 \geq 2 - 8$$

$$y \leq 2x^2 + 3x - 6$$



Pg <sup>9.3</sup> 496 #1ac, 2c, 3all, 4, 5, 7, 8