Quiz

1.b) $\frac{3}{4}|x+2|-7 \leq -8$

$\frac{3}{4}|x+2|-7 = -8$

$\frac{3}{4}|x+2| = -1$

$|x+2| = -\frac{4}{3}$

no critical points

test $x = -2$

$\frac{3}{4}|-2+2|-7 \leq -8$

$0-7 \leq -8$

$-7 \leq -8$ X

No solution

1.b) $\frac{3}{4}|x+2|-7 \leq -8$

$\frac{3}{4}|x+2| \leq -1$

$|x+2| \leq -\frac{4}{3}$

$x+2 \geq 0$

$x \geq -2$

$x+2 \leq -\frac{4}{3}$

$x \leq -\frac{10}{3}$

$\emptyset$

$x+2 < 0$

$x < -2$

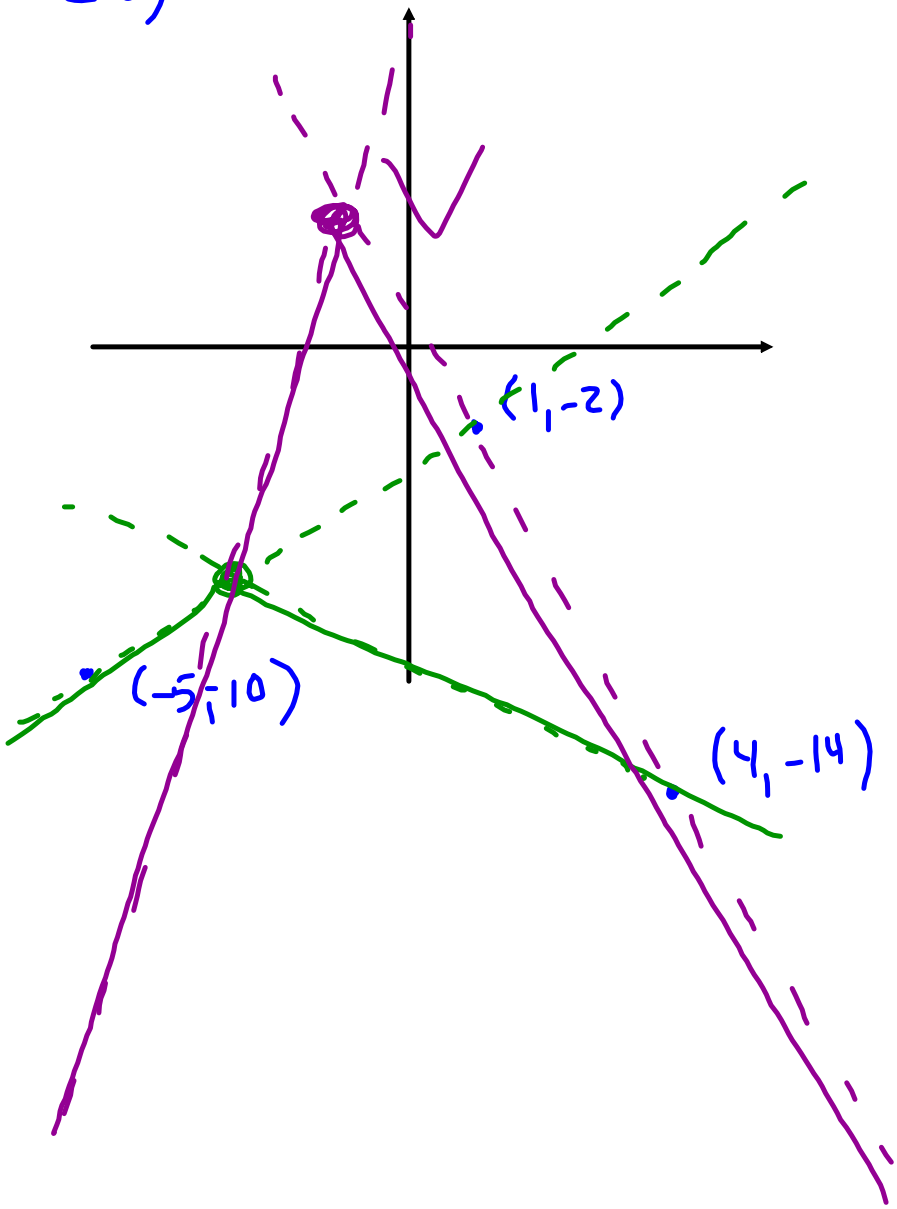
$-(x+2) \leq -\frac{4}{3}$

$x+2 \geq \frac{4}{3}$

$x \geq -\frac{2}{3}$

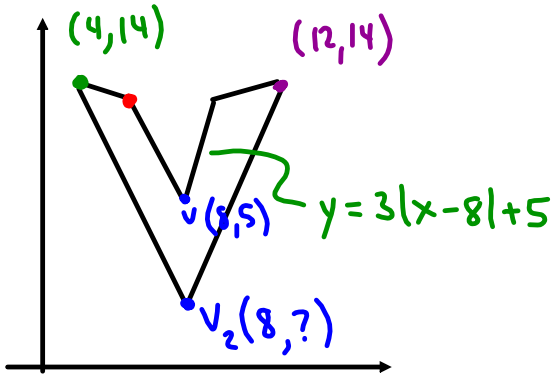
$\emptyset$

2.b)



Enrichment 1.3

#1.



y-value of V_2:

$\frac{\Delta y}{\Delta x} = -3$

$\frac{14-y}{4-8} = -3$

$\frac{14-y}{-4} = -3$

$14-y = 12$

$y = 2$

$y = -0.5x + b$

$14 = -0.5(4) + b$ $y = -0.5x + 16$

$14 = -2 + b$

$16 = b$

Left-ray of absolute value $y = 3|x-8|+5$

$y = -3x + b$

$5 = -3(8) + b$ $y = -3x + 29$

$5 = -24 + b$

$29 = b$

$-0.5x + 16 = -3x + 29$

$2.5x = 13$

$x = 5.2$

$y = -0.5(5.2) + 16 = 13.4$

$$-0.5x+16 = 3|x-8|+5$$

$$-0.5x+11 = 3|x-8|$$

$$-\frac{0.5}{3}x+\frac{11}{3} = |x-8|$$

$$-\frac{1}{6}x+\frac{11}{3} = |x-8|$$

$$-\frac{1}{6}x+\frac{11}{3} = x-8$$

$$\frac{35}{3} = \frac{7}{6}x$$

$$10 = x$$

$$-\frac{1}{6}x+\frac{11}{3} = -(x-8)$$

$$-\frac{1}{6}x+\frac{11}{3} = -x+8$$

$$-\frac{13}{3} = -\frac{5}{6}x$$

$$x = 5.2$$