

Alg II - Rev Ch. 2 HW - p. 109

7) D: $\{-10, -6, 5, 6, 10\}$ R: $\{2, 3, 4, 7\}$ yes.

11) 6, 4.5, 1

14) $y = -3x + 12$

15) $y = 2x - 1$

16) slope = 2 y-int = $(0, -3/2)$

18) slope = -1 y-int = $(0, 5)$

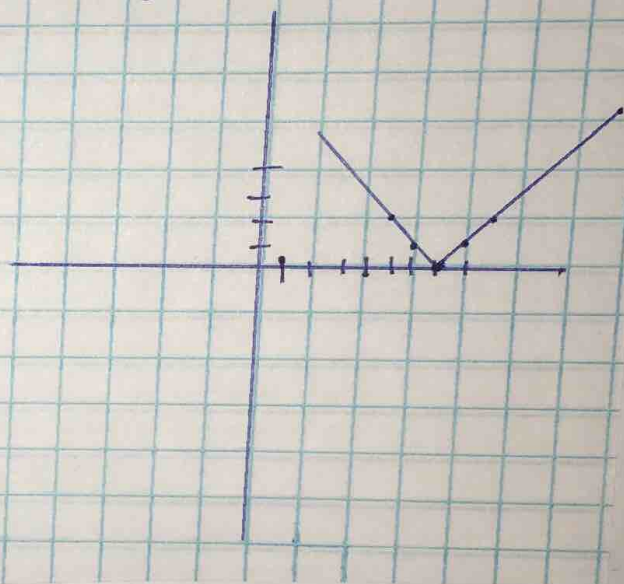
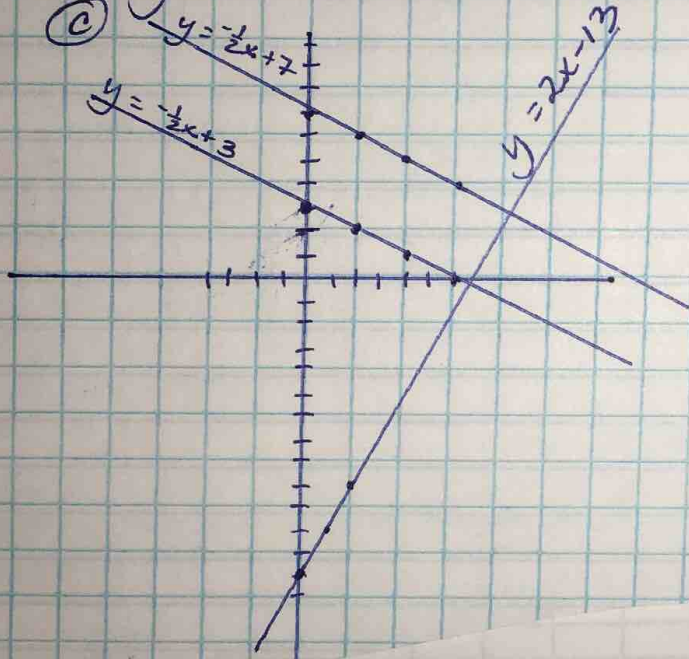
19) (a) $y = -1/2x + 7$

(b) $y = 2x - 13$

(c) $y = 1/2x + 7$
 $y = -1/2x + 3$
 $y = 2x - 13$

8) D: $\{-2, -3/2, -1, 1/2, 1, 2, 3\}$
 R: $\{-7/2, -1/2, 0, 1/2, 3/2, 2, 5/2\}$
 No!

(29) $y = |x - 7|$



31) NO GRAPH. Just describe the transformations.

$$y = \frac{1}{3} |2x+6| + 2$$

$$y = \frac{1}{3} |2(x+3)| + 2$$

vertical shrink by $\frac{1}{3}$ horizontal shrink by $\frac{1}{2}$

up. 2

left 3

33) $y = |x+3|$

35) $y = |x-4| + 1$

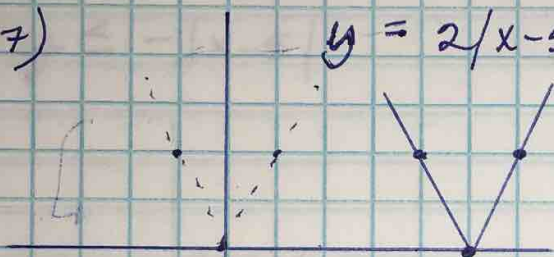
37)

$$y = 2|x-5|$$

$$(-1, 1) \rightarrow (-1, 2)$$

$$(0, 0) \rightarrow (0, 0)$$

$$(1, 1) \rightarrow (1, 2)$$



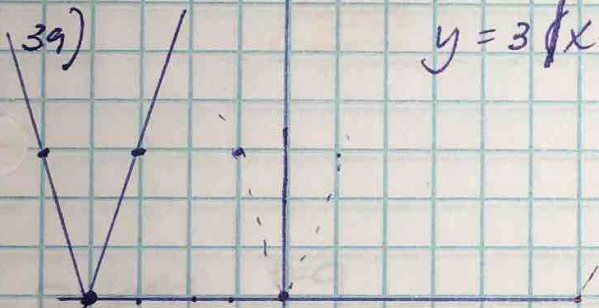
39)

$$y = 3|x+4|$$

$$(-1, 1) \rightarrow (-1, 3)$$

$$(0, 0) \rightarrow (0, 0)$$

$$(1, 1) \rightarrow (1, 3)$$



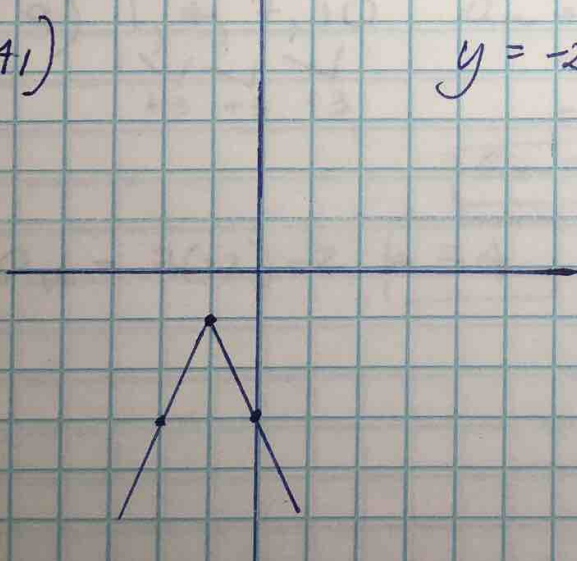
41)

$$y = -2|x+1| - 1$$

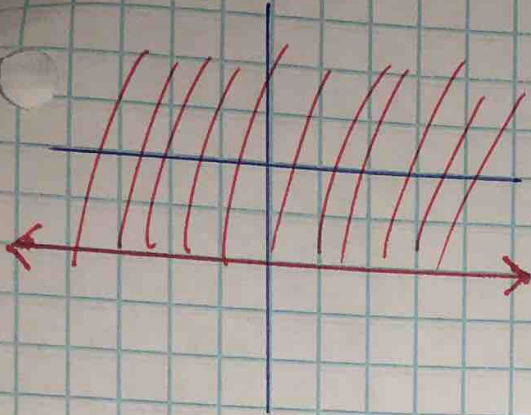
$$(-1, 1) \rightarrow (-1, -2)$$

$$(0, 0) \rightarrow (0, -1)$$

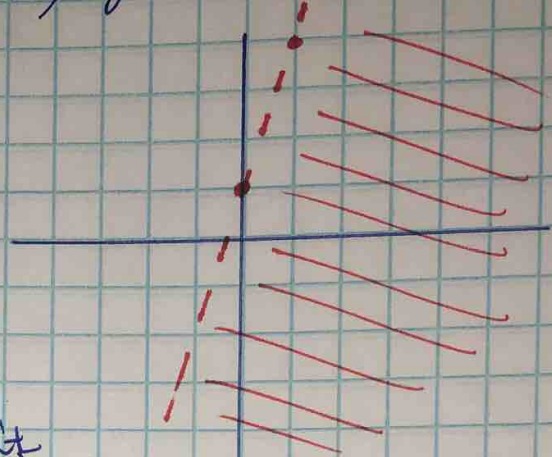
$$(1, 1) \rightarrow (1, -2)$$



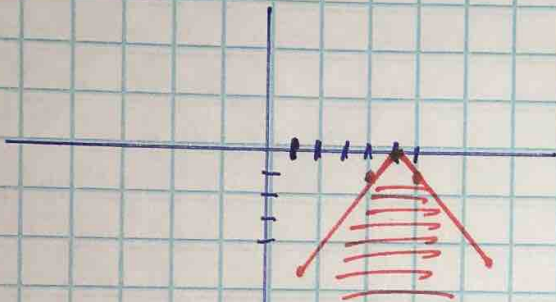
42) $y \geq -2$



43) $y < 3x + 1$



44) $y \leq -|x-5|$

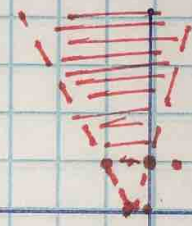


Don't do! 45)

$y \geq |2x+1|$

$y > |2(x + \frac{1}{2})|$

$(-1, 1)$	$-\frac{1}{2}, 1$
$(0, 0)$	$0, 0$
$(1, 1)$	$\frac{1}{2}, 1$



p. 641 #9

9) 1, 4, 7, 10
 $\begin{matrix} \vee & \vee & \vee \\ +3 & +3 & +3 \end{matrix}$

$$\begin{aligned} a_n &= a_1 + (n-1)d \\ &= 1 + (n-1)3 \\ &= 1 + 3n - 3 \end{aligned}$$

$$a_n = 3n - 2$$

$$a_{12} = 3(12) - 2 = 34$$

RWB pg. 17 solutions:

- #5 right 1/2 unit
- #6 reflect, right 1, up 9 units
- #7 V stretch by 2, left 6, down 4 units
- #8 H shrink by 3, up 2

RWB pg. 18 solutions:

- #14 B
- Domain: $(-\infty, \infty)$ Range: $[-4, \infty)$
- #15 D
- Domain: $(-\infty, \infty)$ Range: $[5, \infty)$