

This is a good example of HW!

- * work shown in pencil
- * work organized by problem
- * final answer boxed or highlighted.
- * work shown vertically (each step written underneath the previous step.)

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Alg 1 Per 4

4.3 p 287 #1-6, 8, 9, 15

1) Solve for x : $3x - 5(x+1) = 8x$

$$3x - 5x - 5 = 8x$$

$$-2x - 5 = 8x$$

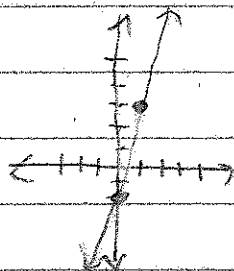
$$-5 = 10x$$

$$\boxed{-\frac{1}{2} = x}$$

2) Graph: $y = 5x - 2$

slope = $\frac{5}{1}$

y-int = -2



3) $\perp$ to $y = \frac{1}{2}x - 1$ through $(-5, 1)$

$\perp m = -2$ $y = -2(x + 5) + 1$

$$y = -2x - 10 + 1$$

$$\boxed{y = -2x - 9}$$

4) Solve: $\begin{cases} 3x - 4y = 3 \\ 2x + 4y = 7 \end{cases}$

$$+ \quad \begin{cases} 3x - 4y = 3 \\ 2x + 4y = 7 \end{cases}$$

$$5x = 10$$

$$x = 2$$

$$3(2) - 4y = 3$$

$$6 - 4y = 3$$

$$-4y = -3$$

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

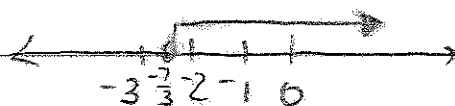
$$\boxed{\left(2, \frac{3}{4}\right)}$$

5) Solve + graph:

$$-3x + 1 < 8$$

$$-3x < 7$$

$$\boxed{x > -\frac{7}{3}}$$



6) Order from least to greatest:

$$-\frac{3}{2}, \sqrt{11}, \frac{16}{5}, -1.7, \frac{22}{7}$$

$$\downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow$$

$$-1.5 \quad \approx 3.32 \quad 3.2 \quad -1.7 \quad \approx 3.14$$

$$\boxed{-1.7, -\frac{3}{2}, \frac{22}{7}, \frac{16}{5}, \sqrt{11}}$$

8) Factor: $x^2 - 3x - 4$

$$\begin{matrix} 4, 1 \\ 0, 2 \\ 2, 2 \end{matrix}$$

$$\boxed{(x-4)(x+1)}$$

9) multiply: $(x-4)^2$

$$= (x-4)(x-4)$$

$$= x^2 - 4x - 4x + 16$$

$$\boxed{= x^2 - 8x + 16}$$

15) simplify: $2\sqrt{3} \cdot 4\sqrt{3}$

$$= 8\sqrt{9}$$

$$= 8 \cdot 3 = \boxed{24}$$