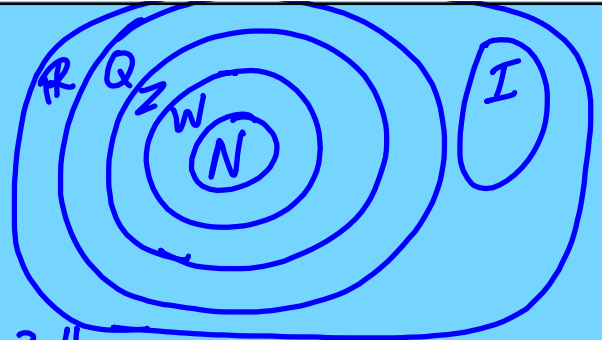


REVIEW

Sets of Numbers



N = Natural Numbers - $1, 2, 3, 4, \dots$

W = Whole Numbers - $0, 1, 2, 3, \dots$

Z = Integers = $\dots, -2, -1, 0, 1, 2, \dots$

Q = Rational = $\frac{m}{n}$ $\frac{2}{3}, \frac{21}{5}, -4$

terminating or repeating decimals
 0.3 7.25 $8.\overline{967}$

I = Irrational non-terminating, non-repeating decimals
 $\pi, \sqrt{2}, \sqrt{11}, e$

R = Real = all rational & irrational #'s

$+6$ $-\frac{23}{7}$ Q, R

$$7 \text{ c-d) } \frac{3}{5} \left[\frac{3}{5} + 2x = \frac{2}{3}(x-4) \right]$$

$$9 + 30x = 10(x-4)$$

$$2 \begin{bmatrix} 1 \\ 2 \end{bmatrix} - 3 \begin{bmatrix} 5 \\ 7 \end{bmatrix} = \begin{bmatrix} 2 \\ 4 \end{bmatrix} + \begin{bmatrix} -15 \\ -21 \end{bmatrix} = \begin{bmatrix} -13 \\ -17 \end{bmatrix}$$

$$\begin{bmatrix} 2 & -3 & 4 & 7 \\ 1 & -4 & 0 & 5 \end{bmatrix} \cdot \begin{bmatrix} 9 & 3 \\ -2 & 1 \\ 6 & 4 \\ 7 & 0 \end{bmatrix} = \begin{bmatrix} 18+6+24+49 & 6+3+16+0 \end{bmatrix}$$

2×4

4×2

$= 2 \times 2$

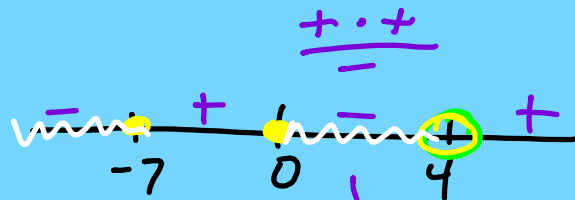
(8) _____ 1.

$$= \begin{bmatrix} 97 & 19 \end{bmatrix}$$

Testing PointsVariable multiplied
or divided ≤ 0 ≥ 0

$$\frac{x(x+7)}{(2x-8)} \leq 0$$

$$\begin{aligned} x &= 0 \\ 2x - 8 &= 0 \\ 2x &= 8 \\ x &= 4 \end{aligned}$$



$$x \leq -7 \text{ OR } 0 \leq x < 4$$

$$24 - 2y \leq y + 4 \leq 3y - 7$$

$$24 - 2y \leq y + 4 \quad \text{AND} \quad y + 4 \leq 3y - 7$$

Solve + graph ↗ must intersect

Abs Value

- 1) Isolate abs value
- 2) Write & solve
2 eq.
- 3) Graph

$$|y+7| \leq -4$$

No sol.

$$|y+7| > -8$$

\mathbb{R}

$$-7 - 3|4-2x| > -14$$

$$\frac{-3|4-2x|}{-3} > \frac{-21}{-3}$$

$$|4-2x| < 7$$

Less THAN
Greater OR

$$4-2x < 7$$

AND

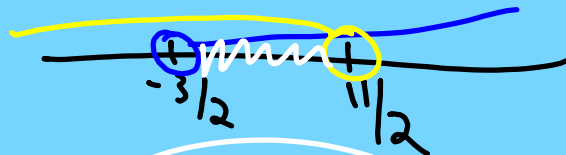
$$4-2x > -7$$

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

$$x > -3/2$$

$$\frac{11}{2} > \frac{2x}{2}$$

$$\frac{11}{2} > x$$



$$-\frac{3}{2} < x < \frac{11}{2}$$