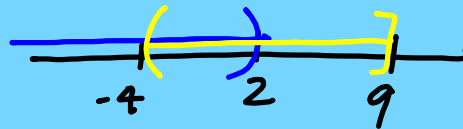


Interval Notation

 $\cup$  union $\cap$  intersection

$$(-\infty, 2) \cup (4, 9]$$



$$(-\infty, 9]$$

$$\cap (-4, 2)$$

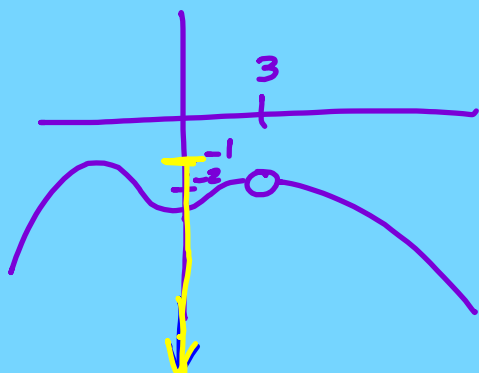
$$2) \quad 3x + y^2 = 28$$

$$\sqrt{y^2} = \sqrt{28 - 3x}$$

$$8 + |3x| = y \quad \text{yes}$$

Not a func rf  
 $y_{\text{even}}$   
 $y = \pm$   
 $|y|$

3 a-c Find domain + range.



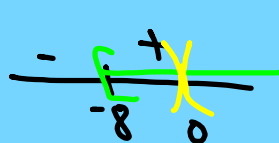
Domain:  $L$  to  $R$   
 $(-\infty, 3) \cup (3, \infty)$   
 OR  $x \neq 3$

Range: Low to High  
 $(-\infty, -1]$

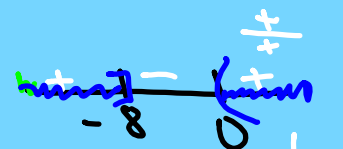
	Domain
Polyn	$\mathbb{R}$
Rat.	Denom $\neq 0$
Even	Test Points (Roots must contain + values)
Odd	$\mathbb{R}$

$$f(x) = \frac{\sqrt{x+8}}{x}$$

$$f(x) = \sqrt{\frac{x+8}{x}}$$



$$[-8, 0) \cup (0, \infty)$$



$$(-\infty, -8] \cup (0, \infty)$$

$$4) \quad f(x) = \begin{cases} \frac{x}{x+2} & x < -2 \\ 4x-1 & -2 \leq x \leq 5 \leftarrow 0 \\ 3x^2+2 & x > 5 \end{cases}$$

$$f(0) = 4(0) - 1 = -1$$

$$f(-8) = \frac{-8}{-8+2} = \frac{-8}{-6} = \frac{4}{3}$$

$$h(x) = \frac{4\sqrt{x+1}}{5\sqrt{x+1} - 3}$$

$$f(x) = \frac{4x}{5x-3}$$

$$g(x) = \sqrt{x+1}$$

$$f \circ g =$$

#6 Combine 2 func.

Domains

f

g

Combined

Where do all 3 intersect.

$$2x - y + 4z = 18$$

$$x + 3y - 2z = 11$$

$$5x - 4y + z = 12$$

~~$$[A]^{-1} \begin{bmatrix} 2 & -1 & 4 \\ 1 & 3 & -2 \\ 5 & -4 & 1 \end{bmatrix} \cdot \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 18 \\ 11 \\ 12 \end{bmatrix} \cdot [A]^{-1}$$~~

$$\begin{bmatrix} 2 & -1 & 4 \\ 1 & 3 & -2 \\ 5 & 4 & 1 \end{bmatrix}^{-1} \cdot \begin{bmatrix} 18 \\ 11 \\ 12 \end{bmatrix} = \begin{bmatrix} - \\ - \\ - \end{bmatrix}$$

