28.

$(\frac{1}{2}, -2)$ $(0, -4)$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-4+2}{0-\frac{1}{2}} = \frac{-2}{-\frac{1}{2}}$$

$$\frac{+2}{+.5} = 4$$

what type of line has $m=0$?

Horizontal $\frac{0}{\#} = 0$

what type of line has an undefined slope?

Vertical $\frac{\#}{0}$ = undefined

30. $x - 3y = 2$

$-x \quad\quad -x$

$-3y = 2 - x$

$\frac{3y}{3} = \frac{-2}{3} + \frac{x}{3}$

$y = -\frac{2}{3} + \frac{x}{3}$

$\frac{1}{3} \cdot x$

Find the slope of this line.

- put in $y = mx + b$ by solving for y.

$m = \frac{1}{3}$

32. slopes of parallell lines...

ARE EQUAL!

$m_1 = m_2$

33. Find EQ of line
4 $(-2,-5)$ $m=\frac{3}{4}$

$y=mx+b$

$-5=\frac{3}{4}(-2)+b$

$-5=-\frac{6}{4}+b$

$-5=-\frac{3}{2}+b$

$+3/2$ or $+1.5$

$b=-3.5$

$y=\frac{3}{4}x-3.5$

$-10=-3+2b$

$\frac{-7=2b}{2}$

$b=-3.5$

$y=\frac{3}{4}x-\frac{7}{2}$

34. $(-1,4)$ $(6,4)$ find EQ.

$m=\frac{y_2-y_1}{x_2-x_1}$

$m=\frac{4-4}{6+1}=\frac{0}{7}=0$

$y=mx+b$

$4=0(-1)+b$

$4=b$

$y=0x+4$

$y=4$

$y=4$

37. Given $f(x) = 4 - x^2$
$g(x) = |2x - 3|$

find $f(g(-1))$

$g(-1) = |2(-1) - 3| = |-2 - 3|$
$= |-5| = 5$

$f(5) = 4 - 5^2 = 4 - 25 = -21$

$-5^2 = -5 \cdot 5$

$(-5)^2 = -5 \cdot -5$

39. $f(x) = \dfrac{x^2 - 7x}{18 + x}$

Find the domain

$D: x \neq -18$