

Review for Final Assignment #1

Evaluate each function.

1) $h(x) = x^2 - 4$; Find $h(-1)$

$$\begin{aligned}
 &= (-1)^2 - 4 \\
 &= 1 - 4 \\
 &= \boxed{-3}
 \end{aligned}$$

3) $f(x) = 4x - 1$; Find $f(-4)$

$$\begin{aligned}
 &= 4(-4) - 1 \\
 &= -16 - 1 \\
 &= \boxed{-17}
 \end{aligned}$$

5) $h(x) = -2x^3 + 2x$; Find $h(3)$

$$\begin{aligned}
 &= -2(3)^3 + 2(3) \\
 &= -2(27) + 6 \\
 &= -54 + 6 \\
 &= \boxed{-48}
 \end{aligned}$$

Simplify each expression.

7) $-9a + 10 + 3a$

$$\boxed{-12a + 10}$$

9) $3(-1 + 4m) + 2$

$$\begin{aligned}
 &-3 + 12m + 2 \\
 &\boxed{-1 + 12m}
 \end{aligned}$$

Solve each equation.

11) $3a + 3a = -24$

$$\begin{aligned}
 6a &= -24 \\
 \div 6 &\quad \div 6
 \end{aligned}$$

$$\boxed{a = -4}$$

2) $g(x) = 2x + 2$; Find $g(-8)$

$$\begin{aligned}
 &= 2(-8) + 2 \\
 &= -16 + 2 \\
 &= \boxed{-14}
 \end{aligned}$$

4) $w(a) = a^2 + 3a$; Find $w(-10)$

$$\begin{aligned}
 &= (-10)^2 + 3(-10) \\
 &= 100 + -30 \\
 &= \boxed{70}
 \end{aligned}$$

6) $k(x) = -3x^3 + 2$; Find $k(-2)$

$$\begin{aligned}
 &= -3(-2)^3 + 2 \\
 &= -3(-8) + 2 \\
 &= 24 + 2 \\
 &= \boxed{26}
 \end{aligned}$$

8) $4(b + 9)$

$$\boxed{4b + 36}$$

10) $-9(8b + 2) + 2$

$$\begin{aligned}
 &-72b + -18 + 2 \\
 &\boxed{-72b + -16}
 \end{aligned}$$

12) $0 = 7x + 5x$

$$\begin{aligned}
 0 &= 12x \\
 \div 12 &\quad \div 12
 \end{aligned}$$

$$\boxed{0 = x}$$

P
M
D
A
S

$$13) 84 = -3(2n + 8) + 4n$$

$$84 = -6n + 24 + 4n$$

$$84 = -10n + 24$$

$$60 = -10n$$

$$\boxed{-6 = n}$$

$$15) -3x + 2(x + 2) = 4x + 5$$

$$-3x + 2x + 4 = 4x + 5$$

$$-5x + 4 = 4x + 5$$

$$-4 = 9x + 5$$

$$-9 = 9x$$

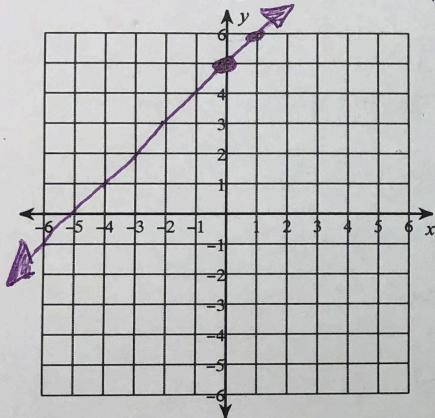
$$\boxed{-1 = x}$$

Sketch the graph of each line.

$$17) y = x + 5$$

$$y - \text{int} = 5$$

$$\text{SLOPE} = 1 = \frac{1}{1} \rightarrow$$



$$14) -8(-6 + 3m) = 120$$

$$48 + 24m = 120$$

$$24m = 72$$

$$\boxed{m = 3}$$

$$16) -7(1 + 3b) + 3b = -b + 32$$

$$-7 + 3b + 3b = -b + 32$$

$$-7 + 24b = -b + 32$$

$$-7 + 25b = -32$$

$$25b = -25$$

$$\boxed{b = -1}$$

$$18) y = \frac{1}{2}x + 4$$

$$y - \text{int} = 4$$

$$\text{SLOPE} = \frac{1}{2} \rightarrow$$

