10/1 Algebra 1 - Downing

Bellwork

1) $x^{-3}x^4 = \frac{x^{-3}x^4}{1} = x^1$ 2) $2a^2 \cdot a^3 = 2x^5$ 3) $x^{-1} \cdot 3x = 3$

4) $n^3 \cdot 4n^4 = 4n^7$ 5) $4x^0 \cdot 4x^{-2} = 16x^{-2} = \frac{16}{x^2}$

3.3 B Literal Equations

Solve for the given variable - Get the variable by itself

Ex) $\frac{A}{b} = \frac{bh}{b}$; for h (solve for h)

$\boxed{\frac{A}{b} = h}$

Ex) $P = 2L + 2W$; for L
$-2W \quad -2W$

$\frac{P-2W}{2} = \frac{2L}{2} = \boxed{\frac{P-2W}{2} = L}$ or $\boxed{\frac{P}{2} - \frac{2W}{2} = L}$ or $\boxed{\frac{P}{2} - W = L}$

Ex) $-2x + 7y = 10$; for x
$-7y \quad -7y$

$\frac{-2x}{-2} = \frac{10-7y}{-2} \rightarrow x = \frac{10-7y}{-2} \rightarrow \frac{10}{-2} - \frac{7y}{-2} \rightarrow \boxed{x = -5 + \frac{7y}{2}}$

Ex) (2) $A = \frac{(b_1+b_2)h}{2}$ (2) ; for b_1

$2A = (b_1 + b_2)h \rightarrow \frac{2A}{h} = b_1 + b_2 = \boxed{\frac{2A}{h} - b_2 = b_1}$
$\frac{}{h} \quad \frac{}{h} \qquad -b_2 \quad -b_2$

Solve for y

Ex) $3y + 4x = -12$
$-4x \quad -4x$

$\frac{3y}{3} = \frac{-4x}{3} - \frac{12}{3}$

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

Ex) $-x + 2y = -10$
$-x \quad -x$

$\frac{2y}{2} = \frac{-x}{2} - \frac{10}{2}$

$\boxed{y = -\frac{1}{2}x - 5}$

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

$y - 4 = 3x - 6$
$+4 \quad +4$

$\boxed{y = 3x - 2}$

HW- Worksheet 3.3B #1-8 only