

CLASS NOTES

Algebra 1

Tues 9-4-12

like terms

terms that have
the same variable AND
each variable has the
same EXPONENT.

(EX) $2x + 3x = 5x$

$$2x^2 + 3x = 2x^2 + 3x$$

$$2x^2 + 3x^3 = 2x^2 + 3x^3$$

$$2 + 3 = 5$$

$$2x^2 + x = 2x^2 + x$$

$$x + x = 2x$$

$$2x^2y^3 + 3x^2y^3 = 5x^2y^3$$

$$2xy^3 + 3x^2y^3 = 2xy^3 + 3x^2y^3$$

Distributive
Property
of
"multiplication over Addition"

$$a(b+c) = ab+ac$$

$$a(b+c+d) = ab+ac+ad$$

$$(b+c)a = ab+ac$$

$$4(3+x) = 12+4x$$

$$4(3x+x) = 16x$$

$$8(2x-3) = 16x - 24$$

$$\textcircled{1} \quad 6 = \frac{N}{3} + 10 \quad \text{Do simpler undo 1st!}$$

$$-10$$

$$3 \cdot -4 = \frac{N}{3} \cdot 3$$

$$-12 = N$$

$$\boxed{N = -12}$$

CK

$$6 \stackrel{?}{=} \frac{(-12)}{3} + 10$$

$$6 \stackrel{?}{=} -4 + 10 \checkmark$$

$$\textcircled{2} \quad 152 = -4(7N-3) \quad \text{CK}$$

$$152 = -28N + 12$$

$$-12$$

$$\frac{140}{-28} = \frac{-28N}{-28}$$

$$-\frac{70}{14} = N$$

$$-\frac{35}{7} = N$$

$$\boxed{N = -5}$$

$$152 \stackrel{?}{=} -4[7(-5)-3]$$

$$\stackrel{?}{=} -4[-35-3]$$

$$\stackrel{?}{=} -4[-38]$$

$$152 \stackrel{?}{=} 152 \checkmark$$

$$\textcircled{25} \quad -187 = -7 \left(\frac{13}{4}b + \frac{29}{7} \right) + \frac{5}{4}$$

$$-187 = -\frac{91}{4}b \quad \left(-29 + \frac{5}{4} \right)$$

$$-187 = -\frac{91}{4}b \quad \left(-\frac{116}{4} + \frac{5}{4} \right)$$

$$4(-187) = \left(-\frac{91}{4}b - \frac{111}{4} \right) \quad \swarrow$$

$$\begin{array}{r} -748 = -91b - 111 \\ + 111 \quad \quad + 111 \end{array}$$

$$\begin{array}{r} -637 = -91b \\ \hline = 91 \quad \quad 791 \end{array}$$

$$\boxed{\oplus 7 = b}$$

$$\begin{aligned} \text{CK} \quad -187 & \stackrel{?}{=} -7 \left[\frac{13}{4}(+7) + \frac{29}{7} \right] + \frac{5}{4} \\ & = -7 \left[+\frac{91}{4} + \frac{29}{7} \right] + \frac{5}{4} \end{aligned}$$

$$= -\frac{637}{4} - \frac{116}{4} + \frac{5}{4}$$

$$-187 = -\frac{753}{4} + \frac{5}{4} = -\frac{748}{4} \quad \checkmark$$