1. $6g^2h + 7gh^2 - g^2h + 5hg^2 - 8gh + 6g^2h^2 - 4gh^2 + 2gh - 5h^2g$

$10g^2h - 2h^2g - 6gh + 6g^2h^2$

2.) Sam was given 30 stamps for his birthday and plans to buy 4 stamps each month. Write an equation to model the number of stamps Sam will have after an unknown number of months.

S = Stamps

M = months

$S = 30 + 4m$

3.) There are six Cokes in a pack and 12 Cokes in a case. Write an equation for the number of Cokes you will have if you purchase an unknown number of packs and cases.

$t = 6p + 12c$

t = total Cokes

p = packs

c = cases

4.) $30 - 10((6 - 2) + (4 - 1)^2) + 1$

$30 - 10((4) + (3)^2) + 1$

$(4 + 9)$

$30 - 10(13) + 1 = 30 - 130 + 1$

$= -99$

Evaluate for H= -6 K= -3 J =5

1. $-H - K^2 = -(-6) - (-3)^2 = 6 - 9$

$= -3$

Evaluate for H= -6 K= -3 J =5

2. $2J^2 - HK = 2(5)^2 - (-6)(-3)$

$= 50 - 18 = 32$

Evaluate for H= -6 K= -3 J =5

3. $HJK - K + H^2$ $= (-6)(5)(-3) - (-3) + (-6)^2$

$90 + 3 + 36$

$= 129$

Evaluate for $M = -6$ $Q = -2$ $R = 3$

4. $-Q - M^2$ $= -(-2) - (-6)^2$

$= 2 - 36 = -34$

Evaluate for $M = -6$ $Q = -2$ $R = 3$

5. $2R^2 - MQ$

$= 2(3)^2 - (-6)(-2)$

$= 18 - 12 = 6$

6. Simplify.

$9 + 2(6 - 2(4 - 7)^2) \div 4 \cdot 3$

$(-3)^2$

$9 + 2(6 - 18) \div 4 \cdot 3$

$= 9 + 2(-12) \div 4 \cdot 3$

$= 9 - 24 \div 4 \cdot 3$

$= 9 - 6 \cdot 3 = 9 - 18$

$= -9$

7. $8 - 12 \div 2 \cdot 3 + 7 \cdot 2 - 5 + 1$

$8-6\cdot 3+7\cdot 2-5+1$

$8-18+7\cdot 2-5+1$

$8-18+14-5+1$

$-10+14-5+1$

$4-5+1$

$-1+1=0$

8.) There are 365 days in a year. Write an equation for the number of days in an unknown number of years.

d = days

y = years

$d = 365y$

9.) Use the table at the right.

a. Does each statement fit the data in the table? Explain.

i. hours worked = lawns mowed · 2 yes

ii. hours worked = lawns mowed + 3 yes

Lawns Mowed	Hours
1	4
2	4
3	6

4
5

b. Writing Which statement in part (a) better describes the relationship between hours worked and lawns mowed? Explain.

Notes: Solving Equations Chapter 2

Is a = 7 a solution to this equation?

$4(5a - 9) + 3 - 2a = 6(a + 13)$

$4(5(7) - 9) + 3 - 2(7) = 6(7 + 13)$

$4(26) + 3 - 14 = 6(20)$

$93 \neq 120$ a = 7 is not the sol.

Is x = 4 a solution to the following equation?

$\sqrt{16x} - 5 = x - 1$

$= \sqrt{16 \cdot 4} - 5 = 4 - 1$

$= 8 - 5 = 4 - 1$

$3 = 3$ ✓

$X = 4$ is the Sol.

Solutions to an equation are
numbers that make the equation TRUE
when subtituted back into the equation.

Property **Addition Property of Equality**

For every real number a, b, and c, if $a = b$, then $a + c = b + c$.

Example $8 = 5 + 3$, so $8 + 4 = 5 + 3 + 4$.

Property **Subtraction Property of Equality**

For every real number a, b, and c, if $a = b$, then $a - c = b - c$.

Example $8 = 5 + 3$, so $8 - 2 = 5 + 3 - 2$.

Property **Multiplication Property of Equality**

For every real number a, b, and c, if $a = b$, then $a \cdot c = b \cdot c$.

Example $\frac{6}{2} = 3$, so $\frac{6}{2} \cdot 2 = 3 \cdot 2$.

Property **Division Property of Equality**

For every real number a, b, and c, with $c \neq 0$, if $a = b$, then $\frac{a}{c} = \frac{b}{c}$.

Example $3 + 1 = 4$, so $\frac{3+1}{2} = \frac{4}{2}$.

1. $-7.3 + Q = 29.4$ $Q =$ 36.7

+7.3 +7.3

2. $-79 = H + 42$ $H =$ -121

-42 -42

3. $C - 401 = -674$ $C =$ -273

+401 +401

4. $\frac{14A}{14} = \frac{-105}{14}$ $A =$ -7.5

5. $\frac{-1.5G}{-1.5} = \frac{-7.2}{-1.5}$ $G = 4.8$

6. $\frac{-M}{-1} = \frac{4.3}{-1}$ $M = -4.3$

7. $\frac{K}{4} \cdot 4 = 12 \cdot 4$ $K = 48$

8. $\frac{2}{7}X = \frac{6}{1} \cdot \frac{7}{3}$ $X = \frac{42}{3} = 14$

9. $-\frac{1}{5}R = 35 \cdot \frac{-5}{1}$ $R = -175$

IXLs assigned - A.2 & I.2 due Sept. 14th