

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### 6.V Worksheet

**1) For each expression, identify any variable(s), coefficient(s), constant. Also, state the number of terms, and identify each term.**

a)  $3m - 7$       b)  $x^2 - y - 2$       c)  $5 - 2a^2 + b^3$       d)  $-3mn^2p^5$

Variable(s):

Coefficient(s):

Constant:

# of Terms:

List of terms:

**2a) In a basketball game, the Warriors scored  $19x + 25y + 18z$  points and the Thunder scored  $22x + 24y + 21z$  points. In these expressions,  $x$  is the value of a 3-pointer,  $y$  is a two-pointer, and  $z$  is a one-point free throw. How many points did each team score? Who won?**

**2b) Over the course of his career, Steve Nash scored this many points:  $1685x + 4636y + 3060z$ . How many total points did he score in his career?**

3) Evaluate for  $x = 2$  and  $y = -1$

a)  $x^2 - 3y + 7$

b)  $5y^2 - 2x^2 + 6y - x$

c)  $2(3xy - x^3y) + 4$

d)  $7xy^2 - 4x \div 3$

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### 6.1A Worksheet

**Solve each equation. Show all work.**

1)  $x + 4 = 9$

2)  $y - 6 = 2$

3)  $p + 7 = -1$

4)  $m - 4 = -4$

5)  $5 - x = 14$

6)  $8 + a = -9$

7)  $y - 2.3 = -1.1$

8)  $4.8 = 3 - m$

9)  $12 = p + 9$

10)  $-6 = 3 + w$

11)  $y - 43 = -27$

12)  $19 = 32.7 + c$

**Solve each equation. Show all work.**

13)  $2y = 6$

14)  $3m = 24$

15)  $-7w = 14$

16)  $-4x = -40$

17)  $-w = 92$

18)  $27 = -9y$

19)  $-54 = -6n$

20)  $4x = -10$

21)  $\frac{m}{2} = 5$

22)  $\frac{w}{6} = -2$

23)  $\frac{x}{-7} = -3$

24)  $4 = \frac{c}{-8}$

25)  $\frac{-y}{5} = 6$

26)  $\frac{-n}{-7} = 7$

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### 6.1B Worksheet

**Solve each equation. Show all work.**

1)  $3x + 5 = 11$  Check for #1      2)  $2y - 4 = 10$       3)  $-p + 7 = -1$

4)  $-5m - 8 = -13$       5)  $3 - 3w = 15$  Check for #5      6)  $18 = -4 - 11x$

7)  $\frac{x}{2} + 7 = 5$  Check for #7      8)  $\frac{y}{-3} - 4 = 1$       9)  $3 + \frac{m}{3} = 5$

**Solve each equation. Show all work.**

10)  $3 + 4m - 6m = 11$     11)  $3x - 8 + 3x = -25 - 1$     12)  $1.4w - 3.7 = 3.3$

13)  $\frac{p}{2} - \frac{1}{4} = -\frac{3}{4}$     14)  $3 + \frac{m}{2} - 6 = 2 - (-3)$     15)  $13 = 2x - 5x - 5$

16) Do a check for #10

17)  $\frac{3m}{2} + 10 = -8$

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**6.1C Worksheet**

**Solve each equation. Show all work.**

1)  $3x + 7 = x + 3$  Check for #1

2)  $-2m - 5 = 3m + 20$

3)  $7y + 6 = 4y - 6$

4)  $-p + 27 - 2p = 6 + 4p$  Check for #4

5)  $8w - 9w = 3w - 16$

6)  $3m - 10.1 = 9.9 - 2m$

7)  $-5 + 1 + x = 3x - 8$

**Solve each equation. Show all work.**

10)  $11y + 25 = 52 + 27 + 2y$

Do a check for #10:

11)  $2p + 10 = 7 - 3p + 13$

12)  $65 + x = 73 + 3x - 4$



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**6.2A Worksheet**

**Simplify**

1)  $3(x + 4)$

2)  $-2(y + 9)$

3)  $4(m - 2)$

4)  $-3(p - 5)$

5)  $7(-y + 3)$

6)  $-(-x - 4)$

7)  $2(x^2 - 6x + 8)$

8)  $-4(m^2 + 2m - 4)$

9)  $5(x + 7) + 2(x + 1)$

10)  $-3(m - 2) - (m + 1)$

11)  $-6(w + 3) - 2(-w - 2)$

**Solve. Show all work.**

12)  $2(x + 1) = -10$

13)  $2(y + 3) - 5 = 6 - 3y$

**Solve. Show all work.**

14)  $5(2m - 3) = 2(-3m - 2) + 5$

15)  $4(p - 7) - 2(p + 3) = -15p$

16)  $7(2y - 1) - 2(5y - 6) = 2(4y - 5) + 7$

17)  $2(n - 8) - (n - 4) = 3(n + 5) + 3$

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### 6.2B Worksheet

**Solve each equation. Show all work.**

1)  $\frac{m}{8} = \frac{1}{4}$

2)  $\frac{-5}{6} = \frac{15}{x}$

3)  $-\frac{9}{y} = \frac{27}{-12}$

4)  $\frac{(w+1)}{3} = \frac{(w-1)}{5}$

5)  $\frac{(2n-3)}{2} = \frac{(-n-1)}{4}$

6)  $\frac{x}{4} = \frac{x}{5} + 1$

7)  $\frac{x}{6} + \frac{x}{8} = 7$

$$8) \frac{x+1}{3} + \frac{x+5}{5} = 4$$

$$9) \frac{y+1}{2} - \frac{y-7}{6} = 3$$

$$10) \frac{4m+5}{3} - \frac{3m}{2} = -m$$