

Name _____ Date _____ Period _____

Review Chapter 2

1. Define and give an example.
 - a. Expression -
 - b. Equation -
 - c. Like Terms -
2. Which ordered pair solves the equation $2y - x = 31$? $(x,y) = (16, 1)$ or $(x,y) = (1,16)$

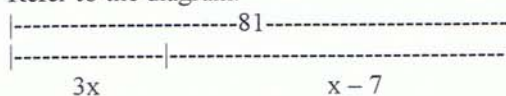
3. Solve the following equations.

a. $3(2s + 6) = 24$	a. $s =$
b. $2y^2 - 16y = 0$	b. $y =$
c. $3(y-7) + \frac{1}{2}(y + 4) = 16$	c. $y =$
d. $4(y - 7) + 2y = 8$	d. $y =$
e. $2\frac{1}{2} + 3\frac{1}{4} = 6 + \frac{m}{12}$	e. $m =$
f. $0t = 1451$	f. $t =$
g. $4x + 3y = 43$ and $y = 14$	g. $x =$

4. Simplify.

a. $t + 56 + 7t$	a.
b. $g^3 + g^2 + g + g^3 + 2g$	b.
c. $8w + 16 - 5w + 3wc - 2c + 0.25wc$	c.

5. Refer to the diagram.



- a. Write an equation to represent the diagram. a. _____

b. Solve that equation.

b. _____

6. Evaluate each expression if $x = 36$ and $y = 27$.

a. $\sqrt{x^2 + y^2}$

b. $x(y - 20)$

7. Kevin has the same number of dollars, fives, and twenties that totals \$390. How many of each does he have?

a. Write an equation.

b. Solve the equation.

8. The Pizza Palace charges \$11.25 for a plain cheese pizza. Each topping costs \$0.75 extra. Let x be the number of toppings.

a. Write an expression for the cost of a cheese pizza with x toppings.

b. If Kasey wants 6 different toppings, what is the cost of her pizza? Write an equation and solve.

c. If Keri spends \$14.25 on her pizza, how many toppings did she get? (Use your equation from part b)

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Review Chapter 2

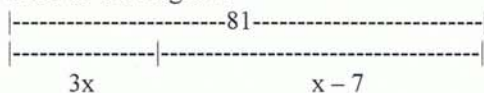
- Define and give an example.
 - Expression -
 - Equation -
 - Like Terms -
- Which ordered pair solves the equation $2y - x = 31$? $(x,y) = (16, 1)$ or $(x,y) = (1,16)$
- Solve the following equations.

a. $3(2s + 6) = 24$ $6s + 18 = 24$ $6s = 24 - 18$ $6s = 6$ $s = 1$	a. $s = 1$
b. $2y^2 - 16y = 0$ $2y(y - 8) = 0$ $2y = 0$ or $y - 8 = 0$ $y = 0$ or $y = 8$	b. $y = \{0, 8\}$
c. $3(y-7) + \frac{1}{2}(y+4) = 16$ $3y - 21 + \frac{1}{2}y + 2 = 16$ $3\frac{1}{2}y - 19 = 14$ $3\frac{1}{2}y = 33$ $y = 10$	c. $y = 10$
d. $4(y-7) + 2y = 8$ $4y - 28 + 2y = 8$ $6y - 28 = 8$ $6y = 36$ $y = 6$	d. $y = 6$
e. $2\frac{1}{2} + 3\frac{1}{4} = 6 + \frac{m}{12}$ $\frac{5}{2} + \frac{3}{4} = 6 + \frac{m}{12}$ $\frac{10}{4} + \frac{3}{4} = 6 + \frac{m}{12}$ $\frac{13}{4} = 6 + \frac{m}{12}$ $-\frac{24}{4} = -\frac{24}{4} + \frac{m}{12}$ $-\frac{11}{4} = \frac{m}{12}$ $m = -3$	e. $m = -3$
f. $0t = 1451$ $t = \text{undefined}$	f. $t = \text{undefined}$
g. $4x + 3y = 43$ and $y = 14$ $4x + 3(14) = 43$ $4x + 42 = 43$ $4x = 1$ $x = \frac{1}{4}$	g. $x = \frac{1}{4}$

- Simplify.

a. $t + 56 + 7t$	a. $56 + 8t$
b. $g^3 + g^2 + g + g^3 + 2g$	b. $2g^3 + 2g + g^2$
c. $8w + 16 - 5w + 3wc - 2c + 0.25wc$	c. $3w + 3.25wc - 2c + 16$

- Refer to the diagram.



- Write an equation to represent the diagram.

a. $81 = 4x - 7$

$$\begin{array}{r} 81 = 4x - 7 \\ + 7 \quad + 7 \\ \hline 88 = 4x \\ 22 = x \end{array}$$

b. $x = 22$

6. Evaluate each expression if $x = 36$ and $y = 27$.

a. $\sqrt{x^2 + y^2} = \sqrt{36^2 + 27^2} = \sqrt{1296 + 729} = \sqrt{2025} = 45$

b. $x(y - 20) = 36(27 - 20) = 36(7) = 252$

7. Kevin has the same number of dollars, fives, and twenties that totals \$390. How many of each does he have?

a. Write an equation. $390 = x + 5x + 20x$
 $390 = 26x$

b. Solve the equation.

$$\begin{array}{r} 390 = 26x \\ \frac{390}{26} = \frac{26x}{26} \\ 15 = x \end{array}$$

8. The Pizza Palace charges \$11.25 for a plain cheese pizza. Each topping costs \$0.75 extra. Let x be the number of toppings.

a. Write an expression for the cost of a cheese pizza with x toppings.

$$\$11.25 + \$0.75x$$

b. If Kasey wants 6 different toppings, what is the cost of her pizza? Write an equation and solve.

$$C = \$11.25 + 0.75(6)$$

$$C = \$11.25 + \$4.50$$

$$C = \$15.75$$

c. If Keri spends \$14.25 on her pizza, how many toppings did she get? (Use your equation from part b)

$$\begin{array}{r} \$14.25 = \$11.25 + \$0.75x \\ -\$11.25 \quad -\$11.25 \\ \hline \end{array}$$

$$\begin{array}{r} \$3.00 = \$0.75x \\ \frac{\$3.00}{\$0.75} = \frac{\$0.75x}{\$0.75} \end{array}$$

$$4 = x$$

Chapter 2 Test (24 Questions)

1-2 : Multiple Choice (1 pt each)

3-6 : True or False, Show work to support your answer
(2 pts each)

7-8 : Solve the equation (3 pts each)

9-16 : Simplify the exp. or Solve the equation. Show all work
(3 pts each)

17-18 : Evaluate when...
(3 pts each)

19-20 : Diagram (2 pts each)

21-23 : Word Problems (4 pts, 6 pts, 10 pts)

24 : Substitute (3 pts)

Total = 75