

Center #1 – Evaluate the expression when  $x = 20$  and  $y = 4$

1.  $x \div 5$                       2.  $xy - 8y$                       3.  $x^2 - y^3$

4. In a video game, you score  $p$  game points and  $b$  triple bonus points. An expression for your score is  $p + 3b$ . What is your score when you earn 245 game points and 20 triple bonus points?

Center #2 – Write the phrase as an expression. Then evaluate when  $a = 5$  and  $b = 8$ .

1. The sum of 7 and the product of a number  $a$  and 12

2.  $b$  fewer than the number 11

3. The product of 4 and the difference of 9 and the number  $a$ .

4. A number 17 decreased by  $b$

5. Your basketball team scored 4 fewer than twice as many points as the other team. Write an expression using the variable  $p$  for points. How many points did your team score if the other team scored 24 points?

Center #3 – Simplify and state the property you used for each step.

1.  $10 + (2 + y)$                       2.  $(21 + b) + 1$                       3.  $3(7x) + 0$

4.  $5.3(w + 1.2)$                       5.  $36 \cdot r \cdot 1$                       6.  $7 + 3x + 4$

Center #4 – Simplify the expression.

1.  $5(a - 3) + 4a$

2.  $3(x + 4y) + 2x - 7y$

3.  $24 + 2(m - 7)$

Center #5 – Identify the terms, coefficients, and constants.

1.  $5m + 3$

2.  $3a + b$

3.  $4x^2 + 8y + 3$

Terms:

Terms:

Terms:

Coefficients:

Coefficients:

Coefficients:

Constants:

Constants:

Constants:

Center #6

Tickets to the play cost \$8 for adults and \$5 for kids. Write an expression for the total cost of  $x$  adults and  $y$  kids tickets. Then use the expression to find the total cost if 12 adults and 7 kids attend the play.

Each side of a triangle has a length of  $24y$  centimeters. Draw what this looks like then write an expression for the perimeter of the triangle (in centimeters).

Center #1 – Evaluate the expression when  $x = 20$  and  $y = 4$

1.  $x \div 5$

$20 \div 5 = 4$

2.  $xy - 8y$

$20 \cdot 4 - 8 \cdot 4$   
 $80 - 32 = 48$

3.  $x^2 - y^3$

$20^2 - 4^3$   
 $400 - 64 = 336$

4. In a video game, you score  $p$  game points and  $b$  triple bonus points. An expression for your score is  $p + 3b$ . What is your score when you earn 245 game points and 20 triple bonus points?

$245 + 3(20)$

$245 + 60 = 305$  points

Center #2 – Write the phrase as an expression. Then evaluate when  $a = 5$  and  $b = 8$ .

1. The sum of 7 and the product of a number  $a$  and 12

$7 + 12a \rightarrow 7 + 12 \cdot 5$   
 $7 + 60 = 67$

2.  $b$  fewer than the number 11

$11 - b \rightarrow 11 - 8 = 3$

3. The product of 4 and the difference of 9 and the number  $a$ .

$4(9 - a) \rightarrow 4(9 - 5)$   
 $4(4) = 16$

4. A number 17 decreased by  $b$

$17 - b \rightarrow 17 - 8 = 9$

5. Your basketball team scored 4 fewer than twice as many points as the other team. Write an expression using the variable  $p$  for points. How many points did your team score if the other team scored 24 points?

$2p - 4 \rightarrow 2(24) - 4$   
 $48 - 4 = 44$  pts.

Center #3 – Simplify and state the property you used for each step.

1.  $10 + (2 + y)$

$(10 + 2) + y$  associative  
 $12 + y$  Do not distribute

2.  $(21 + b) + 1$

$b + 21 + 1$  commutative  
 $b + 22$

3.  $3(7x) + 0$

Do not distribute  
 $3(7x)$  zero property of add.  
 $(3 \cdot 7)x$  associative  
 $21x$

4.  $5.3(w + 1.2)$

$5.3w + 6.36$  distributive

5.  $36 \cdot r \cdot 1$

$36 \cdot 1 \cdot r$  commutative  
 $36r$  mult. property of one  
 or identity property

6.  $7 + 3x + 4$

$7 + 4 + 3x$  commutative  
 $11 + 3x$

Math 6 Ch 3 p146 #1-15 add, 20-22 add

Center #4 – Simplify the expression.

1.  $5(a-3) + 4a$

$$\begin{aligned} & \overset{\curvearrowright}{5(a-3)} + 4a \\ & 5a - 15 + 4a \\ & \overset{\curvearrowright}{5a + 4a} - 15 \\ & 9a - 15 \end{aligned}$$

2.  $3(x+4y) + 2x - 7y$

$$\begin{aligned} & \overset{\curvearrowright}{3(x+4y)} + 2x - 7y \\ & 3x + 12y + 2x - 7y \\ & 3x + 2x + 12y - 7y \\ & 5x + 5y \end{aligned}$$

3.  $24 + 2(m-7)$

$$\begin{aligned} & \overset{\curvearrowright}{24 + 2(m-7)} \\ & 24 + 2m - 14 \\ & \overset{\curvearrowright}{24 - 14} + 2m \\ & 2m + 10 \end{aligned}$$

Center #5 – Identify the terms, coefficients, and constants.

1.  $5m + 3$

Terms:  $5m, 3$

Coefficients:  $5$

Constants:  $3$

2.  $3a + b$

Terms:  $3a, b$

Coefficients:  $3, 1$

Constants:  $\text{none}$

3.  $4x^2 + 8y + 3$

Terms:  $4x^2, 8y, 3$

Coefficients:  $4, 8$

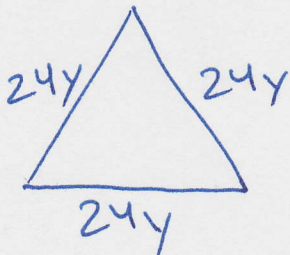
Constants:  $3$

Center #6

Tickets to the play cost \$8 for adults and \$5 for kids. Write an expression for the total cost of  $x$  adults and  $y$  kids tickets. Then use the expression to find the total cost if 12 adults and 7 kids attend the play.

$$\begin{aligned} & 8x + 5y \\ & 8 \cdot 12 + 5 \cdot 7 \\ & 96 + 35 = \$131 \end{aligned}$$

Each side of a triangle has a length of  $24y$  centimeters. Draw what this looks like then write an expression for the perimeter of the triangle (in centimeters).



$$\begin{aligned} & 24y + 24y + 24y \\ & 72y \text{ cm.} \end{aligned}$$