

# Answers to Study Guide #10

$$\textcircled{1} \quad 9(x-6) \quad \boxed{9x - 54}$$

$$\textcircled{2} \quad 20 + 8d$$

$20 \div 4 \quad 8 \div 4$

$$4(5 + 2d)$$

$$\textcircled{3} \quad 30_p + 5 - 14p + 8$$

$$\boxed{30p - 14p} \quad \boxed{+5 + 8}$$

$$116\rho + 13$$

$$\textcircled{4} \quad \begin{array}{l} \cancel{4(5 + 6k)} \\ \cancel{20 + 24k} \end{array}$$

$$\begin{array}{l} \textcircled{5} \quad 15 + 5d \\ \cancel{+ 5} \quad \cancel{15} \quad 5(3+d) \\ \hline \cancel{20} \end{array}$$

$$\textcircled{6} \quad 4x + 5(x+6)$$

$4x$  +  $5x + 30$

$9x + 30$  answer

$$\textcircled{7} \quad 7(5m-6)$$

$35m - 42$

$$\textcircled{8} \quad 4(6m-5)$$

$24m - 20$

$$\textcircled{9} \quad 17x + 9 - 5x - 7$$

$17x - 5x$     $+9 - 7$

$$12x + 2$$

$$\textcircled{10} \quad 8(6+y)$$

$48 + 8y$

$$\textcircled{11} \quad 12m + 9j - 10m - 7j + 3m$$

$$12m - 10m + 3m + 9j - 7j$$

$$5m + 2j$$

$$\textcircled{12} \quad 16k + 2(4 + 5k) - 10k$$

$$16k + 8 + 10k - 10k$$

$$16k + 10k - 10k + 8$$

$$16k + 8$$

$$\textcircled{13} \quad 8m + 3m + 12 + 2m - 8 - 8m$$

$$8m + 3m + 2m - 8m + 12 - 8$$

$$5m + 4$$

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⑯  $6y^2 + y + y + 13$

$$6y^2 + 2y + 13 \quad \text{answer}$$

⑯  $r + r + 9r - 2$

$$11r - 2$$

Identify the expression that is NOT equivalent to the one given.

16.  $16y + 20$

A.  $4(4y + 5)$

~~$16y + 20$~~

B.  $36y$

C.  $20y + 9 - 4y + 11$

D.  $5y + 28 - 8 + 7y + 4y$

17.  $30 - 24w$

~~$16y + 20$~~

A.  $5(6 - 6w)$

~~$30 - 30w$~~

B.  $15 + 45w + 15 - 21w$

$30 + 24w$

~~$6(5 - 4w)$~~

D.  $15(2 - 9w)$

~~$30 - 135w$~~

Determine which property of multiplication is shown (Associative, Identity, Distributive or Commutative).

1)  $4 \times 1 = 4$  Identity

2)  $(5 \times 7) \times 4 = 5 \times (7 \times 4)$  Associative

3)  $10 \times 8 = 8 \times 10$  Commutative

4)  $6 \times 1 = 1 \times 6$  Commutative

5)  $4 \times (5 + 6) = (4 \times 5) + (4 \times 6)$  Distributive  $\rightarrow 4(5+6) \rightarrow (4 \cdot 5) + (4 \cdot 6)$

6)  $6 \times (0 + 8) = (6 \times 0) + (6 \times 8)$  Distributive  $\rightarrow 6(0+8) \rightarrow (6 \cdot 0) + (6 \cdot 8)$

7)  $(8 \times 3) \times 6 = 8 \times (3 \times 6)$  Associative

8)  $7 \times (2 \times 3) = (7 \times 2) \times 3$  Associative

9)  $8 \times 1 = 8$  Identity

10)  $1 \times 1 = 1$  Identity

Answers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_