

1) Identify the operation indicated by each key term.

- 1. Sum: Addition
- 2. Difference: Subtraction
- 3. Product: multiply
- 4. Quotient: divide
- 5. Less than: subtraction *
- 6. Greater than: addition
- Times: multiply

5 less than y
y-5

2) Match each expression to the correct word phrase

- 5 + 2 5 times 6
- 3 x 4 The sum of 5 and 2
- 12 ÷ 2 1 less than 3
- 5 x 6 The product of 3 and 4
- 3 - 1 12 split into 2 equal groups

3) What is the first step in evaluating the expression $5(4 + 2)^2$?

- (A) 6^2
- (B) $4 + 2$
- (C) 5×4
- (D) 2^2

PEMDAS

4) Silvio made 35 cupcakes. He also made m muffins. Which expression represents how many more muffins Silvio made than cupcakes?

- (A) $m - 35$
- (B) $35 + m$
- (C) $35m$
- (D) $35 \div m$

5) Select **all** the expressions that are equivalent to $6 \times 6 \times 6 \times 6 \times 6$

- (A) $6^3 \times 6^2$ $(6 \times 6 \times 6) \times (6 \times 6)$
- (B) ~~x^6~~
- (C) 6^5
- (D) $6^1 \times 6^4$ $6 \times (6 \times 6 \times 6 \times 6)$
- (E) ~~$x^3 \times x^8$~~

$5^2 = 5 \cdot 5 = 25$

7) Simplify the expression: **(SHOW WORK)**

$(3 + 2)^2 + 3 \cdot 7$ **PEMDAS**

$(5)^2 + 3 \cdot 7$

$25 + 3 \cdot 7$

$25 + 21 = 46$

8) Identify the coefficients in the algebraic expression below:

$4w - x + 10$

4 and -1

9) What are the different parts of the expression $8x + 9y - 17$?

Write each part of the expression in the correct place in the table.

Constant	Variables	Coefficients
-17	x, y	8, 9

- 10) Ellen is 2 years older than her brother Luke. Let k represent Luke's age. Which expression represents Ellen's age?

$$\begin{array}{l} 2 + k \\ k + 2 \end{array}$$

- 11) The product of two different numbers is 132. If one of the numbers is x , what expression represents the value of the other number?

$$\boxed{x} \cdot \boxed{} = 132$$

$$\frac{132}{x}$$

$$132 \div x$$

- 12) Paulo and Marie are collecting quarters. The number of quarters Paulo has is 3 times the quantity, with 5 fewer, than the number of quarters Marie has. Let m be the number of quarters Marie has. What expression represents the number of quarters Paulo has?

$$3m - 5$$

- 13) There are red and blue marbles in a bowl. There are twice as many blue marbles as red marbles. What expression represents the number of blue marbles?



$$\begin{array}{l} 2r \\ r \times 2 \\ r \cdot 2 \\ 2 \cdot r \end{array}$$

- 14) Joan has 3 fewer dogs than rabbits. Let r be the number of rabbits Joan has.

Select all the expressions that represent the total number of animals Joan has.

- (A) r
 (B) $r + (r - 3)$
 (C) $r - 3$
 (D) $2r - 3$
 (E) $r + (r + 3)$

$$\begin{array}{l} (r) = \text{rabbits} \\ (r - 3) = \text{dogs} \\ \underline{r} + \underline{(r - 3)} \\ 2r - 3 \end{array}$$

- 15) Kyle starts with \$15.00 and saves \$3.50 each day. What expression represents the total amount Kyle saves?

$$15 + 3.5d$$

- 16) Part A

A taxi service charges \$6.50 to pick someone up, and then \$0.80 per mile for a trip.

Write an expression that can be used to find the cost of a taxi ride for any number of miles, m .

$$6.50 + 0.8m$$

$$\begin{array}{r} 4 \\ 0.8 \\ \times 5 \\ \hline 4.0 \end{array}$$

Part B

What is the cost of a taxi ride that is 5 miles long? (SHOW WORK)

$$\begin{array}{l} 6.5 + (0.8)(5) \\ 6.5 + 4 = \boxed{\$10.50} \end{array}$$