

Grade 6 Assessment Review Expressions

Evaluate the expression

$420 + m$

$m = 50$

$6X + X$  where  $X = 8$

$\frac{x - 6}{7} + X$  where  $x$  is 42

$16 + y - x$  where  $y$  is 22  $x = 12$

Maja gets paid \$5.00 an hour for every hour she works. The algebraic expression they use to calculate her pay is  $P = 5 \times H$ .

What letters are variables? \_\_\_\_\_

What is the constant in this expression? \_\_\_\_\_

What is the operation? \_\_\_\_\_ -

**Write an algebraic expression for each;**

15 increased by a number \_\_\_\_\_

The quotient of 12 and number \_\_\_\_\_

28 decreased by a number \_\_\_\_\_

The quotient of a number and 6 \_\_\_\_\_

Write the algebraic expression in words:

$8n$

$15x - 15$

$6s + 13$

Matt spends 30 minutes a night on homework plus an extra 20 min for test review. Write an algebraic expression to show how much time he spends on homework. Use your algebraic expression to show how much time he spends on homework in one month if he does homework 4 nights a week.

The total number of books Mitzi reads over the summer can be found using the expression  $2 \times n + 3$  where  $n$  represents the number of weeks. After how many weeks will she have read 11 books?

# Math Assessment Patterning and Algebra 6

## Knowledge and Understanding

1. Evaluate the expression

$$m + 210 \quad m = 50$$

$$\frac{x - 7 + x}{6} \quad \text{where } x \text{ is } 42$$

$$4X + X \quad \text{where } X = 9$$

$$16 + y - 3 \quad \text{where } y \text{ is } 22$$

## Communication

2. Write an algebraic expression for each;

8 more than a number \_\_\_\_\_

The quotient of 2 and number \_\_\_\_\_

A number decreased by ten \_\_\_\_\_

3. Write the algebraic expression in words:

$$2n$$

$$5x - 4$$

Francine gets paid \$7.00 for each hour she works. The formula to calculate her pay is shown below.

$$P = 7 \times H$$

Which of the following statements is true?

- A  $P$  is the only variable.
- B  $H$  is the only constant.
- C  $P$  and  $H$  are variables.
- D  $P$  and  $H$  are constants.

## Problem Solving

Amazon charges \$4.00 per book plus a \$15.00 to ship the books to your house. Write an algebraic expression to show the cost of order books. What would it cost you if you bought 8 books?

Categories	Level 1	Level 2	Level 3	Level 4
<b>Knowledge and Understanding</b> \$ facts, terms, procedural skills	demonstrates limited knowledge of facts, terms, procedural skills by applying them with several major errors( 1 or 2 partially correct)	demonstrates some knowledge of facts, terms, procedural skills by applying them with several minor errors or omissions (1 or 2 correct with a minor computation error)	demonstrates considerable knowledge of facts, terms, procedural skills, by applying them with few minor errors or omissions (3 correct or 2 correct with 1 with a minor computation error)	demonstrates a thorough knowledge of facts, terms, procedural skills, by applying them with rarely any errors or omissions (4 correct or 3 with 1 with a minor computation error)
<b>Thinking</b> understands the problem makes a plan (chooses a strategy) carries out the plan looks back - justifying, proving, reflecting	demonstrates limited effectiveness in: understanding what the problems are asking choosing a strategy and rarely carrying it through to an accurate solution	demonstrates some effectiveness in: understanding what the problems are asking choosing an appropriate strategy and sometimes carrying it through to an accurate solution	demonstrates considerable effectiveness in: understanding what the problems are asking choosing an appropriate strategy and usually carrying it through to an accurate solution (may have minor computational error)	is highly effective in: understanding what the problems are asking choosing an effective strategy and consistently carrying it through to an accurate solution
<b>Communication</b> expresses mathematical ideas orally, visually and in writing using numbers symbols, pictures, graphs, diagrams and words explains, justifies, reflects	communicates mathematical thinking with limited effectiveness with little evidence of organization, clarity, uses conventions, vocabulary and terminology with limited effectiveness to convey mathematical information 1	communicates mathematical thinking with some effectiveness with some degree of organization, clarity, uses conventions, vocabulary and terminology with some effectiveness to convey basic mathematical information 2/3	communicates mathematical thinking with considerable effectiveness with an appropriate degree of organization, clarity uses conventions, vocabulary and terminology with considerable effectiveness to convey mathematical information 4/5	communicates mathematical thinking effectively with a high degree of organization, clarity uses conventions, vocabulary and terminology effectively to convey mathematical information 6/7