Answers _____ Correct / 14 Total

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

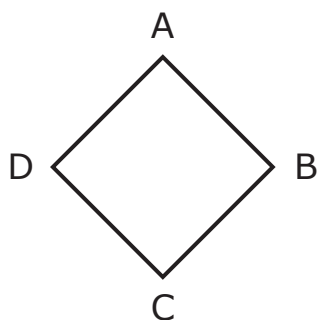10. _____

11. _____

12. _____

13. _____

14. _____

Post-Test

The following questions are multiple-choice. Read carefully and write your answer (**A**, **B**, **C**, or **D**) on the answer sheet.

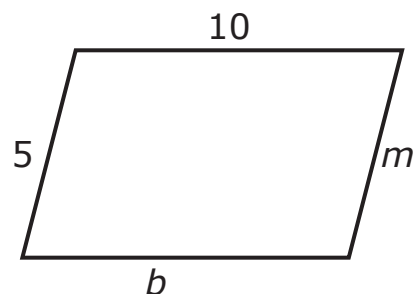**1.** Circle the situation that represents a variable.

A

A

D   B

C

C   3 g = 300 mg

B $3\left(2^3 + 1\right) - \frac{4}{5}$

D

10

5   m

b

2. Look at the following two equations.

$8(h) = 48$ and $8 + h = 14$

What is the value of h?

A $h = 6$

B $h = 22$

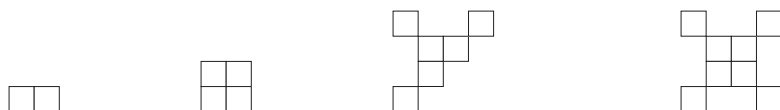**C** $h = 40$

D $h = 6$ and $h = 22$

(P)ost-Test

3. This set of equations represents a pattern.

$$2 + 0 = 2$$
$$4 + 0 = 4$$
$$7 + 0 = 7$$
$$11 + 0 = 11$$

Which of the following is a generalization of the pattern using a variable?

A $n + 0 = 11$ **C** $n + 0 = 0$

B $n + 0 = n$ **D** $n(0) = 0$

4. Look at the geometric pattern and table.

Stage	Number of Blocks
1	2
2	4
3	6
4	8

Looking at the pattern in the tile design, which of the following is the correct generalization?

A $n + 2$ **B** n **C** $2n + 2$ **D** $2n$

Post-Test

5. Look at the table.

Term	Thinking Process	Total
1	⊕ ⊕ ⊕ ⊕ ⊕ ⊕	6
2	⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕	10
3	⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕	14
4	⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕	18

Which of the following is the correct generalization of the pattern in the table?

A $n + 4$ **C** $4n + 6$

B $4n + 2$ **D** $4n$

6. Look at the table.

Term	Thinking Process	Total
1	⊕ ⊕ ⊕ ⊕	4
2	⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕	7
3	⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕	10
4	⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕	13

Which of the following generalizations correctly represents the pattern in the table?

A $3n$ **C** $n + 4$

B $n + 3$ **D** $3n + 1$

P ost-Test

7. Think about the following situation.

> ***The product of the first number and 5 is equal to the second number.***

Which of the following equations represents the situation?

A $5x = y$

B $5x = x$

C $x + 5 = y$

D $\frac{x}{5} = y$

8. Think about the following situation.

> ***The sum of one number and twice the second number is 7.***

Which of the following equations represents the situation?

A $2x + x = 7$

B $2x + y = 7$

C $x + y + 2 = 7$

D $2(x + y) = 7$

(P)ost-Test

9. Think about the following situation.

> *Jeremiah started working at a carwash. The total amount of money he makes (m) will be based on the number of hours (h) that he works at the carwash.*

Relating to the situation, which of the following correctly represents the quantities that vary as independent and dependent?

A   *m* is independent
     h is dependent

B   *m* is independent
     h is independent

C   *m* is dependent
     h is independent

D   *m* is dependent
     h is dependent

10. Think about the following situation.

> *The cost (c) of a health spa membership is $50 per month (m).*

Which equation represents the relationship in the situation?

A $c = 50m$

B $c = m + 50$

C $m = 50c$

D $m = c + 50$

P ost-Test

Think about the following situation and use to answer questions 11 and 12.

Miguel enjoys music. Miguel's music club charges a fee of $5 plus $2 per song purchased.

11. If n = number of songs and c = music club cost, which equation best represents the verbal situation above?

A	$c = n + 5$	**C**	$c = 2n + 5$
B	$c + 5 = 2n$	**D**	$c = 5n + 2$

12. Which table best represents the situation above?

A

Number of Songs (n)	Music Club Cost (c)
1	$5
2	$7
3	$9

C

Number of Songs (n)	Music Club Cost (c)
1	$2
2	$7
3	$12

B

Number of Songs (n)	Music Club Cost (c)
1	$6
2	$7
3	$8

D

Number of Songs (n)	Music Club Cost (c)
1	$7
2	$9
3	$11

P ost-Test

Read the following situation and use to answer questions 13 and 14.

Jessica is selling doughnuts to earn money for a trip. She already has $5 and is selling doughnuts for $0.50 each.

13. Which equation best represents the situation above?

A $m = 0.50d + 5$ **C** $m = d + 5$

B $m = 5d + 0.50$ **D** $m = 0.50d$

14. Which table best represents the situation above?

A

Number of Doughnuts (d)	Total Money Earned (m)
1	$.50
2	$1.00
3	$1.50

C

Number of Doughnuts (d)	Total Money Earned (m)
1	$5.50
2	$6.00
3	$6.50

B

Number of Doughnuts (d)	Total Money Earned (m)
1	$6.00
2	$7.00
3	$8.00

D

Number of Doughnuts (d)	Total Money Earned (m)
1	$5.00
2	$5.50
3	$6.00

A nswer Key

Item	Correct Answer	Standard	Lesson
1.	**D**	A.3(A)	1
2.	**A**	A.3(A)	2
3.	**B**	A.3(B)	3
4.	**D**	A.3(B)	4
5.	**B**	A.3(B)	5
6.	**D**	A.3(B)	6
7.	**A**	A.1(C)	7
8.	**B**	A.1(C)	8
9.	**C**	A.1(A)	9
10.	**A**	A.1(C)	10
11.	**C**	A.1(C)	11
12.	**D**	A.1(D)	11
13.	**A**	A.1(C)	12
14.	**C**	A.1(D)	12