



Answers

_____ Correct / 14 Total

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

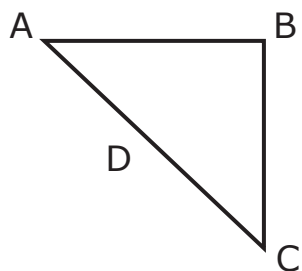
14. _____

Mid-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



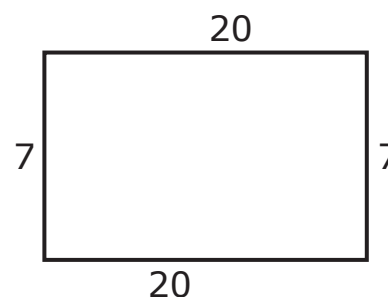
C

$$4 \text{ g} = 400 \text{ mg}$$

B

$$3(4x - 1) + 2$$

D



2. Look at the following two equations.

$$3(d) = 18 \quad \text{and} \quad 4 + d = 10$$

What is the value of d ?

A

$$d = 22$$

B

$$d = 28$$

C

$$d = 6$$

D

$$d = 6 \text{ and } d = 28$$

Mid-Test

3. This set of equations represents a pattern.

$$1(0) = 0$$

$$2(0) = 0$$

$$3(0) = 0$$

$$4(0) = 0$$

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

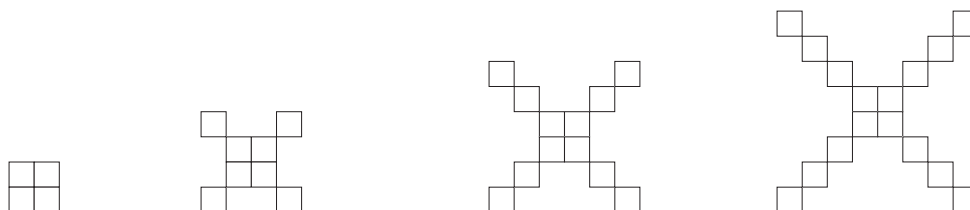
A $n + 0 = n$

C $n(0) = n$

B $n + 0 = 0$

D $n(0) = 0$

4. Look at the geometric pattern and table.



Stage	Number of Blocks
1	4
2	8
3	12
4	16

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

A $n + 4$

B $4n$

C $4n + 4$

D n

Mid-Test

5. Look at the table.

Term	Thinking Process	Total
1	$\oplus \oplus \oplus \oplus$	4
2	$\oplus \oplus \oplus \oplus \oplus \oplus \oplus$	7
3	$\oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus$	10
4	$\oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus$	13

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

- A** $3n + 1$ **C** $4n + 3$
B $3n + 4$ **D** $3n$

6. Look at the table.

Term	Thinking Process	Total
1	$\oplus \oplus \oplus$	3
2	$\oplus \oplus \oplus \oplus \oplus$	5
3	$\oplus \oplus \oplus \oplus \oplus \oplus \oplus$	7
4	$\oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus \oplus$	9

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

- A** $2n$ **C** $2n + 1$
B $n + 2$ **D** $3n + 1$

Mid-Test

7. Think about the following situation.

The product of the first number and 3 is equal to the second number.

Which of the following equations represents the situation?

A $3 + x = y$

B $3x = y$

C $3x = x$

D $\frac{x}{3} = y$

8. Think about the following situation.

The sum of one number and double a second number is 7.

Which of the following equations represents the situation?

A $2a + a = 7$

B $2(a + b) = 7$

C $a + b + 2 = 7$

D $2a + b = 7$

Mid-Test

9. Think about the following situation.

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

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

- A** h is dependent
 m is dependent
- B** h is independent
 m is dependent
- C** h is independent
 m is independent
- D** h is dependent
 m is dependent

10. Think about the following situation.

The cost (c) of a movie club membership is \$12 per month (m).

Which equation represents the relationship in the situation?

- A** $m = c + 12$
- B** $c = m + 12$
- C** $c = 12m$
- D** $m = 12c$

Mid-Test

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

Miguel enjoys popcorn. Miguel's popcorn club charges a fee of \$10 plus \$2 per flavor ordered.

- 11.** If p = number of popcorn flavors and c = popcorn club cost, which equation best represents the situation above?

A $c = 2p$

C $c = 2p + 10$

B $c = 10p + 2$

D $c + 10 = 2p$

- 12.** Which table best represents the situation above?

A

Number of Popcorn Flavors (p)	Popcorn Club Cost (c)
1	\$12
2	\$14
3	\$16

C

Number of Popcorn Flavors (p)	Popcorn Club Cost (c)
1	\$10
2	\$12
3	\$14

B

Number of Popcorn Flavors (p)	Popcorn Club Cost (c)
1	\$2
2	\$4
3	\$6

D

Number of Popcorn Flavors (p)	Popcorn Club Cost (c)
1	\$12
2	\$24
3	\$36

Mid-Test

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

Jessica is selling cookies to earn money for a trip. She already has \$12 and is selling cookies for \$0.75 each.

13. Which equation best represents the situation above?

A $m = 0.75c$

C $m = c + 12$

B $m = 12c + 0.75$

D $m = 0.75c + 12$

14. Which table best represents the situation above?

A

Number of Cookies (c)	Total Money Earned (m)
1	\$12.75
2	\$51.50
3	\$63.25

C

Number of Cookies (c)	Total Money Earned (m)
1	\$0.75
2	\$1.50
3	\$2.25

B

Number of Cookies (c)	Total Money Earned (m)
1	\$12.00
2	\$12.75
3	\$13.50

D

Number of Cookies (c)	Total Money Earned (m)
1	\$12.75
2	\$13.50
3	\$14.25

Answer Key

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