

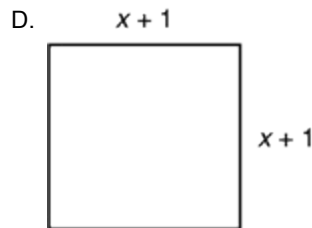
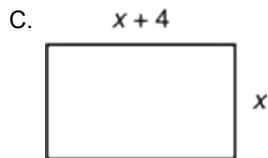
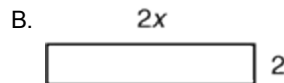
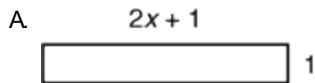
TEST NAME: **Expression Application Word Problems**  
TEST ID: **1987319**  
GRADE: **07 - Seventh Grade**  
SUBJECT: **Mathematics**  
TEST CATEGORY: **School Assessment**

Student: \_\_\_\_\_

Class: \_\_\_\_\_

Date: \_\_\_\_\_

1. Mrs. Thornton asked her students to draw a figure with a perimeter of  $4x + 4$ . Shown below are 4 drawings made by her students. (They are not drawn to scale.) Which one is NOT correct?



2. Margo and Jeremy each have  $x$  baseball cards. They put some of their baseball cards in one album. Then, a friend gave them 8 more baseball cards to complete the album. Margo and Jeremy then filled two more albums with the same number of baseball cards as in the first album.

Which expression best represents the total number of baseball cards in all three albums?

- A.  $2(2x) + 8$                       B.  $3(2x) + 8$   
C.  $2(2x + 8)$                       D.  $3(2x + 8)$
3. The expression  $8x + 12y$  represents the sum of Harry and Mike's total monthly wages, where  $x$  represents the number of hours Harry worked and  $y$  represents the number of hours Mike worked. What is another way to write the expression, and what can you conclude from rewriting it in this way?
- A.  $8(x + 1.5y)$ ; Harry's hourly wage is 1.5 times Mike's.      B.  $8(x + 1.5y)$ ; Mike's hourly wage is 1.5 times Harry's.  
C.  $12(8x + y)$ ; Harry's hourly wage is 8 times Mike's.      D.  $8(x + 4y)$ ; Mike's hourly wage is 4 times Harry's.

4. Kara sells bracelets for \$5 each. She represents the price of  $x$  bracelets with the expression  $5x$ . Which expression represents another way Kara could determine the price of  $x$  bracelets?

A.  $\frac{10}{x^2}$

B.  $x + 5$

C.  $(x \div 5) \times 5$

D.  $(x \div 2) \times 10$

5. At a restaurant, any slice of pizza costs \$2.50. The restaurant is serving pepperoni and sausage pizza. Which expression represents the cost of  $x$  number of pepperoni slices and  $y$  number of sausage slices of pizza?

A.  $2.50 + (x + y)$

B.  $2.50(x + y)$

C.  $2.50x + y$

D.  $2.50xy$

6. Ice cream costs  $n$  dollars per scoop at an ice cream shop. The table below shows the number of scoops purchased by 3 different customers.

Customers	Scoops Bought
Person 1	3
Person 2	4
Person 3	1

Which expression represents the total amount, in dollars, of scoops bought?

A.  $3n \times 4n \times n$

B.  $3n + 4n + 1$

C.  $n \times 3 + 4 + 1$

D.  $8n$

7. At a local fair, a hamburger cost \$2.50, and a drink cost \$1.50. Which expression represents the cost of  $x$  number of hamburgers and  $y$  number of drinks?

A.  $4.00xy$

B.  $4.00 + x + y$

C.  $2.50x + 1.50y$

D.  $2.50 + x + 1.50 + y$

8. A rectangle has a width of  $x$  and a length of  $y$ . Which expression would calculate the perimeter of the rectangle?
- A.  $xy$
  - B.  $x + y$
  - C.  $2x + 2y$
  - D.  $(2x)(2y)$
9. Andrew studied  $x$  hours on Monday,  $y$  hours on Tuesday, and  $z$  hours on Wednesday. Which expression represents the average number of hours per day Andrew studied?
- A.  $x + y + z$
  - B.  $3(x + y + z)$
  - C.  $3(xyz)$
  - D.  $\frac{x + y + z}{3}$
10. To rent a moving truck, Jennifer must pay a fee of \$35.00 per day ( $d$ ), then \$0.80 for each mile driven ( $m$ ). Which expression could be used to find the total cost to rent a moving truck for  $d$  days and driving the truck  $m$  miles?
- A.  $35 + 0.80m$
  - B.  $0.80m + 35d$
  - C.  $0.80d + 35$
  - D.  $35.80dm$
11. Which expression is equivalent to  $m - 0.25m$ ?
- A. 0.25 times  $m$
  - B. 0.75 times  $m$
  - C. 0.25 less than  $m$
  - D. 0.75 less than  $m$

12. A community center charges  $x$  dollars for a summer activity if individuals are signed up before the day of the activity. Individuals who sign up the day of the activity are charged a fee of  $x + 0.20x$  dollars. Which expression also represents the fee for signing up the day of the activity, and what does it mean about the fee?
- A.  $1.2x$ ; individuals signing up the day of the activity get charged 20% more
- B.  $0.8x$ ; individuals signing up the day of the activity get charged 20% more
- C.  $1.2x$ ; individuals signing up the day of the activity get charged 20% less
- D.  $0.8x$ ; individuals signing up the day of the activity get charged 20% less