NAME Key DATE PERIOD

Unit 6, Lesson 12: Meaning of Exponents

1. Select **all** expressions that are equivalent to 64.

   A. 2^6
   B. 2^8
   C. 4^3
   D. 8^2
   E. 16^4
   F. 32^2

2. Select **all** the expressions that equal 3^4.

   A. 7
   B. 4^3
   C. 12
   D. 81
   E. 64
   F. 9^2

3. 4^5 is equal to 1,024. Evaluate the following expressions.

   a. 4^6 b. 4^4 c. $4^3 \cdot 4^2$

4. $6^3 = 216$. Using exponents, write three more expressions whose value is 216.

5. Find two different ways to rewrite $3xy + 6yz$ using the distributive property. (from Unit 6, Lesson 11)

6. Solve each equation.

   a. $a - 2.01 = 5.5$ b. $b + 2.01 = 5.5$ c. $10c = 13.71$ d. $100d = 13.71$

   (from Unit 6, Lesson 5)

7. Which expressions represent the total area of the large rectangle? Select **all** that apply.

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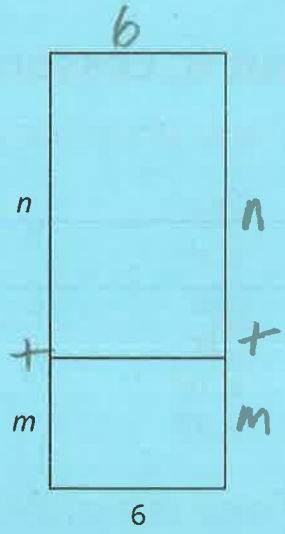
A. $6(m+n)$
B. $6n+m$ NO
C. $6n+6m$
D. $6mn$ NO
E. $(n+m)6$

Area = length × width

$m+n \cdot 6$

$6(m+n)$

$6m+6n$



(from Unit 6, Lesson 10)

8. Is each statement true or false? Explain your reasoning.

a. $\frac{45}{100} \cdot 72 = \frac{45}{72} \cdot 100$ NO $\frac{45 \cdot 72}{100}$

b. 16% of 250 is equal to 250% of 16 Yes

.16 2.5

(from Unit 3, Lesson 16)

$3250 \times .16 = 4000$ (2) vs $2.5 \times 16 = 40$ (1)

1500 15 0
250 25
4000 400

same digits and each has one number that is divided by 100