Name _____ Class _____ Date _____

1-4 Standardized Test Prep

Properties of Real Numbers

Multiple Choice

For Exercises 1–5, choose the correct letter.

1. Which of the following statements is *not* always true?

A. $a + (-b) = -b + a$

B. $a - (-b) = (-b) - a$

C. $(a + b) + (-c) = a + [b + (-c)]$

D. $-(-a) = a$

2. Which pair of expressions are equivalent?

F. $18m \cdot 0$ and 1

G. $6 + r + 11$ and $6 \cdot r \cdot 11$

H. $(12 - 5) + \pi$ and 7π

I. $x(3 - 3)$ and 0

3. What property is illustrated by the equation $(8 + 2) + 7 = (2 + 8) + 7$?

A. Commutative Property of Addition

B. Associative Property of Addition

C. Distributive Property

D. Identity Property of Addition

4. Which expression is equivalent to $-a \cdot b$?

F. $a \cdot (-b)$ **G.** $b - a$ **H.** $(-a)(-b)$ **I.** $-a + b$

5. Which is an example of an identity property?

A. $a \cdot 0 = 0$ **B.** $x \cdot 1 = x$ **C.** $(-1)x = -x$ **D.** $a + b = b + a$

Short Response

6. The fact that changing the grouping of addends does not change the sum is the basis of what property of real numbers?