## Working with the Properties of Mathematics

1) Which is an example of Identity Property of Addition?
A. $2+9=9+2$
B. $(9+6)+5=9+(6+5)$
C. $8 \times 1=8$
D. $7+0=7$

2 ) Which operation will not change the value of any nonzero number?
A. Dividing by Zero
B. Multiplying by One
C. Adding One
D. Multiplying by Zero

3 ) Which of the following does not show the Commutative Property?
A. $y x=x y$
B. $x+y=y+x$
C. $x y-6=x y$
D. $3+y=y+3$

4 ) Which property would you use to simplify the following expression? $7(y+9)$
A. Distributive Property
B. Commutative Property
C. Associative Property
D. Multiplication Property of Zero

5 ) Which equation shows the Commutative Property of Multiplication?
A. $9 \times 3=9+9+9$
B. $3 \times 1=3$
C. $4 \times 8=8 \times 4$
D. $2 \times 5-6 \times 5=(2-6) \times 9$
$6)$ Which property of addition is used in the following? $(7+8)+4=7+(8+4)$
A. Commutative Property
B. Distributive Property
C. Associative Property
D. Identity Property

7 ) Which is an example of Associative Property of Addition?
A. $(5+7)+8=5+(7+8)$
B. $2+5=5+2$
C. $9+(-9)=0$
D. $6+0=6$

8 ) Which of the following does not show the Commutative Property of Addition?
A. $3 x+4 y=4 y+3 x$
B. $a+b=b+a$
C. $a b=b a$
D. $6+x=x+6$

9 ) Which property is used in the following expression? ( $\mathrm{a} \times \mathrm{b}$ ) $\times \mathrm{c}=\mathrm{a} \times(\mathrm{b} \times \mathrm{c})$
A. Commutative Property of Addition
B. Associative Property of Addition
C. Distributive Property
D. Associative Property of Multiplication

10 ) Simplify this expression : $5(y+z)$
A. $5 y+5 z$
B. $5 z+y$
C. $5 y+z$
D. 5 yz

## Working with the Properties of Mathematics

11 ) Which property is used in the following expression? $\quad(7 \times 2) \times 6=2 \times(6 \times 7)$
A. Distributive Property of Multiplication
B. Associative Property of Addition
C. Commutative Property of Addition
D. Associative Property of Multiplication

12 ) Which property is used in the following? $5 \times(9+6)=5 \times 9+5 \times 6$
A. Distributive Property
B. None of the above
C. Commutative Property
D. Associative Property

13 ) Which equation shows the Identity Property of Multiplication?
A. $a(b+c)=a b+a c$
B. $\mathrm{a} \times 1$
C. $a+a+a=3 \times a$
D. $(a+b)+3=a+(3+b)$

14 ) Which Property of Addition does $4+0=4$ illustrate?
A. Zero Property
B. Commutative Property
C. Distributive Property
D. Identity Property

15 ) Which of the following is an example of Commutative Property of Addition ?
A. $5 \times 1=5$
B. $(3+9)+2=3+(9+2)$
C. $4+3=3+4$
D. $7+6=8+7$

16 ) Which Property of Multiplication is shown? $(4+9) \times 6=4 \times 6+9 \times 6$
A. Commutative Property
B. Identity Property
C. Distributive Property
D. Associative Property

17 ) Which property is used in the following expression? $\quad 3(8+4)=24+12$
A. Commutative Property of Addition
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