Prealgebra Review #10: Properties of Numbers

Properties of Real Numbers		
Property	Addition	Multiplication
Commutative Property	$a+b=b+a$	$a\cdot b=b\cdot a$
Associative Property	$a+(b+c)=(a+b)+c$	$a\cdot(b\cdot c)=(a\cdot b)\cdot c$
Distributive Property	$a\cdot(b+c)=a\cdot b+a\cdot c$	
Identity Property	$a+0=a$	$a\cdot 1=a$
Inverse Property	$a+(-a)=0$	$a\cdot\frac{1}{a}=1$

1.

Identify the property which applies to each example.

A.

B.

$$3(7+4)=3(7)+3(4)$$

C.

Simplify. Use the properties to make this an easier problem.

1) 2(73)(5)

2) $-5\cdot 4\cdot 67\cdot(-5)$

3) $-\frac{3}{5}+\frac{7}{8}+\frac{9}{8}+\frac{3}{5}$

Decide whether the statement is an example of the commutative, associative, identity, inverse, or distributive property.

4) $7+(-7)=0$

5) $4\cdot 1=4$

6) $\left(\frac{8}{5}\right)\left(\frac{5}{8}\right)=1$

7) $(8\cdot 4)\cdot 1=8\cdot(4\cdot 1)$