

5 IS IT ALWAYS TRUE?

Test each of these statements to see if they are true for all numbers.

Try some decimals and fractions.

1 p, s and r are all numbers.

a $p \times s = s \times p$ (You can multiply two numbers in any order.)

b $p \times s \times r = s \times p \times r = r \times s \times p$
(You can multiply any three numbers in any order.)

c $p \times (s + r) = (p \times s) + (p \times r)$
(If you split a number, you can multiply the two parts separately and add the products.)

Example $4 \times (20 + 7) = (4 \times 20) + (4 \times 7)$
 $= 80 + 28$
 $= 108$

d $p \times s = r$ and $r \div s = p$

2 When subtracting, if you add the same thing to both numbers, the answer stays the same.

3 When adding two numbers, if you add an amount to one number and subtract the same amount from the other number, the answer stays the same.

How could knowing these rules, and when they apply, help you to check quickly whether an answer makes sense?

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