An **equation** is a number sentence stating that two amounts are equal.

9. This equation is true.

   $8 = 2 \times 4$

   (a) Add 10 to both sides. Is the equation still true?
   $8 + 10 = (2 \times 4) + 10$

   (b) Add 10 to one side and $2 \times 5$ to the other side. Is the equation still true?
   $8 + 10 = (2 \times 4) + (2 \times 5)$

   (c) Multiply both sides by 10. Is the equation still true?
   $8 \times 10 = (2 \times 4) \times 10$

   (d) Multiply one side by 10 and the other side by $(5 + 5)$. Is the equation still true?

   $8 \times 10 = 2 \times 4 \times (5 + 5)$

   If you add or multiply both sides of an equation by the same number, the two sides stay equal.

10. Find the number that goes in the ▢ to make the equation true.

   (a) $24 + (15 - 4) = \boxed{\phantom{0}} + 11$

   (b) $(4 + 5) \times (3 + 7) = \boxed{\phantom{0}} \times 10$

   (c) $100 \times (10 \div 5) = \boxed{\phantom{0}} \times 2$

   (d) $(14 + 10) \div 2 \times 3 = \boxed{\phantom{0}} \times 3$