

2-3: Distributive Property

The Distributive Property:

To multiply a sum or difference, multiply each number within the parentheses by the number outside the parentheses.

$$3(2+6) = 3(2) + 3(6) \quad a(b+c) = ab + ac$$

$$(2+6)(3) = 2(3) + 6(3) \quad (b+c)a = ba + ca$$

$$6(7-4) = 6(7) - 6(4) \quad a(b-c) = ab - ac$$

$$(7-4)(6) = 7(6) - 4(6) \quad (b-c)a = ba - ca$$

Worksheet Answers 1-5:

1. $5(b+c) = 5b + 5c$
2. $3(x+7) = 3x + 3(7) = 3x + 21$
3. $(h+4)6 = h(6) + 4(6) = 6h + 24$
4. $-5(p+3) = -5p + (-5)(3) = -5p + (-15) = -5p - 15$
5. $-3(x-8) = -3x - (-3)(8) = -3x - (-24) = -3x + 24$