Name _____ Date _____ Answer Key

Expanding Linear Expressions
Using the Distributive Property

You can use the **distributive property** to expand expressions that are written as products.

Let's try it!

Expand $4(2x + y - 6)$.

$$4(2x + y - 6) = 4(2x) + 4(y) + 4(-6)$$ *Multiply each term inside the parentheses by 4.*

$$= 8x + 4y - 24$$ *Simplify.*

Expand each expression. Write the simplified expression on the blank.

$3(a + 7) =$ $3a + 21$

$9(-4t + 3) =$ $-36t + 27$

$-5(2y - 5) =$ $-10y + 25$

$6(3b - 7) =$ $18b - 42$

$-7(4q + 10r - 8) =$ $-28q - 70r + 56$

$4(-8f - 5g + 3) =$ $-32f - 20g + 12$

$6(x + 4 - 6y) =$ $6x + 24 - 36y$

$2(11b - 14c + 25) =$ $22b - 28c + 50$

$3(1.2y + 0.8) =$ $3.6y + 2.4$

$-0.9(9m - 0.5) =$ $-8.1m + 0.45$

$\frac{1}{3}(6g + 15) =$ $2g + 5$

$\frac{3}{4}(-12r - 8) =$ $-9r - 6$

$-3(0.6t + 0.2u - 8) =$ $-1.8t - 0.6u + 24$

$\frac{2}{5}(a - 10b + 5) =$ $\frac{2}{5}a - 4b + 2$

$-0.8(-0.6c + 1.2d + 4) =$ $0.48c - 0.96d - 3.2$

$-\frac{2}{3}(6x - y + 12) =$ $-4x + \frac{2}{3}y - 8$