# The Distributive Property

***Overview of problems***

*Example Set: A*

Use the Distributive Property to fill in the blanks

$$4(6+1) = 4(\_) + 4(\_)$$

$$\_\_(\_ + \_\_) = 2(5) + 2(7)$$

Use the Distributive Property to simplify

$3(6+2)$

$-4(1-5)$

$(7+3)2$

$-(x-1)$

$2(y+6)$

$(x-10)x$

*Example Set: B*

Use the Distributive Property to simplify

$8y(2y+3)$

$3t(2-t)$

$-2a(a-10)$

$x(y+z)$

$4xy(3-x)$

*Example Set: C*

Use the Distributive Property to simplify

$-3(x^2-2x+1)$

$2y^2(4y+10)$

$-9t(10-t+2t^3)$

$-(-6z^2-z+5)$

# The Distributive Property

***Overview of problems- KEY***

*Example Set: A*

Use the Distributive Property to fill in the blanks

$4(6+1) = 4(\underline{6}) + 4(\underline{1})$

$\underline{2}(\underline{5}+\underline{7}) = 2(5) + 2(7)$

Use the Distributive Property to simplify

$3(6+2) = 18 + 6 = 24$

$-4(1-5) = -4 + 20 = 16$

$(7+3)2 = 14 + 6 = 20$

$-(x-1) = -x + 1$

$2(y+6) = 2y + 12$

$(x-10)x = x^2 - 10x$

*Example Set: B*

Use the Distributive Property to simplify

$8y(2y+3) = 16y^2 + 24y$

$3t(2-t) = 6t + -3t^2$

$-2a(a-10) = -2a^2 + 20a$

$x(y+z) = xy + xz$

$4xy(3-x) = 12xy - 4x^2y$

*Example Set: C*

Use the Distributive Property to simplify

$-3(x^2-2x+1) = -3x^2+6x+-3$

$2y^2(4y+10) = 8y^3+20y^2$

$-9t(10-t+2t^3) = -90t+9t^2+-18t^4$

$-(-6z^2-z+5) = 6z^2+z-5$