

The Distributive Property 1.4



Overview of problems

Example Set: A

Use the Distributive property to fill in the blanks:

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

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

Use the Distributive property to simplify:

1. $3(6 + 2)$

5. $2(y + 6)$

2. $-4(1 - 5)$

6. $(x - 10)x$

3. $(7 + 3)2$

4. $-(x - 1)$

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Example Set: B

Use the distributive property to simplify:

1. $8y(2y + 3)$

2. $3t(2 - t)$

3. $-2a(a - 10)$

4. $x(y + z)$

5. $4xy(3 - x)$

Example Set: C

Use the distributive property to simplify:

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

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

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

4. $-(-6z^2 - z + 5)$

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Example Set: A -**ANSWER KEY**

Use the Distributive property to fill in the blanks:

3. $4(6 + 1) = 4(6) + 4(1)$

4. $2(5 + 7) = 2(5) + 2(7)$

Use the Distributive property to simplify:

1. $3(6 + 2) = 18 + 6 = 24$

5. $2(y + 6) = 2y + 12$

2. $-4(1 - 5) = -4 + 20 = 16$

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

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

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

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Example Set: B- **ANSWER KEY**

Use the distributive property to simplify:

$$1. 8y(2y + 3) = 16y^2 + 24y$$

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

$$3. -2a(a - 10) = -2a^2 + 20a$$

$$4. x(y + z) = xy + xz$$

$$5. 4xy(3 - x) = 12xy - 4x^2y$$



Example Set: C- **ANSWER KEY**

Use the distributive property to simplify:

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

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

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

$$4. -(-6z^2 - z + 5) = 6z^2 + z - 5$$