

Assignment

Write

Match each term to the correct example.

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|------------------|---------------------------|
| 1. factor | a. the 6 in $6(x) + 6(3)$ |
| 2. coefficient | b. $-6x - 18 = -6(x + 3)$ |
| 3. common factor | c. the 4 in $4x + 3$ |

Remember

The Distributive Property states that if a , b , and c are any real numbers, then $a(b + c) = ab + ac$.

The Distributive Property makes it possible to write numeric and algebraic expressions in equivalent forms by expanding and factoring expressions.

Practice

Use the Distributive Property to rewrite each expression in its equivalent form.

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|-----------------------------------|---|
| 1. $4(x + 3)$ | 2. $-7(4 - y)$ |
| 3. $6(3x + 5y - 4)$ | 4. $\frac{9a - 3}{3}$ |
| 5. $\frac{0.4(0.3m + 0.6n)}{1.2}$ | 6. $-9\frac{2}{3}(-2\frac{1}{4}a + b + 8\frac{1}{4})$ |

Rewrite each linear expression by factoring out the greatest common factor.

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|---------------|----------------|
| 7. $64x + 24$ | 8. $-5y - 35$ |
| 9. $36 - 8z$ | 10. $54n - 81$ |

Rewrite each linear expression by factoring out the coefficient of the variable.

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|-------------------------|---------------|
| 11. $-2x + 5$ | 12. $3x - 8$ |
| 13. $-\frac{1}{2}x + 6$ | 14. $-x - 10$ |

Stretch

1. Jack decides to grow and sell bean plants. Let p represent the number of plants he will grow and sell. After considering his expenses, the expression $-3p(p - 10) - 6p(p - 10)$ represents his profit.
- Rewrite and simplify the profit expression by factoring out the greatest common factor.
 - Rewrite the expression in simplest form with no parentheses.

Review

Evaluate each expression for the given value.

1. $-20a - 65$ for $a = 2.7$

2. $-6x + 52$ for $x = 1\frac{1}{6}$

Determine each product.

3. $(-3.472)(0.89)$

4. $(-2\frac{7}{8})(-4\frac{4}{5})$

Identify the constant of proportionality in each graph and use it to write an equation in the form $y = kx$.

