

## 5.8 Combining Like Terms

Chapter 5: Introduction to Algebra

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Class/Period: \_\_\_\_\_

**Problem 5.141** Simplify  $5x + 8x$ .

**Problem 5.144** Simplify  $9m - 3m - 8m$ .

**Problem 5.142** Simplify  $12y - 7y$ .

**Problem 5.145** Simplify  $6p + 4 - 2p + 7$ .

**Problem 5.143** Simplify  $-4a + 11a$ .

**Problem 5.146** Simplify  $15 - 3q + 8q - 9$ .

## 5.8 Combining Like Terms

### Chapter 5: Introduction to Algebra

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**Problem 5.147** Simplify  $4x + 3y - 2x + 5y$ .

**Problem 5.150** Simplify  $2xy + 7x - 5xy + x$ .

**Problem 5.148** Simplify  $-7r + 2s + 9r - 5s$ .

**Problem 5.151** List all pairs of like terms in  $4x, 3y, -2x, 5x^2, -y$ .

**Problem 5.149** Simplify  $3a^2 + 5a - 8a^2 + 2a$ .

**Problem 5.152** Explain why  $6x + 6$  cannot be simplified to  $12x$ .

## 5.8 Combining Like Terms

Chapter 5: Introduction to Algebra

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**Problem 5.153** A rectangle has length  $3x + 2$  and width  $x + 5$ . Write and simplify an expression for its perimeter.

**Problem 5.155** Create two different expressions that simplify to  $5x - 7$ .

**Problem 5.154** Evaluate  $7a - 3b + 2a + 5b$  for  $a = -2$ ,  $b = 4$ , first before simplifying and then after simplifying. Compare.

**Problem 5.156** A student claims  $2x + 3y = 5xy$ . Use two substitutions to disprove the claim.