

Chapter 1: Factoring Polynomials

Lesson 1: Review of Area Models and Basic Factoring

⑤ Question #1

Reference Q.2139

Multiply two monomials.

$$8y(2x)$$

⑤ Question #2

Reference Q.2140

Multiply two monomials.

$$-2x(-9y)$$

⑤ Question #3: Question 2148

Reference Q.2148

Multiply the binomial by the monomial.

$$2y(7x - 6)$$

⑤ Question #4: Question 2149

Reference Q.2149

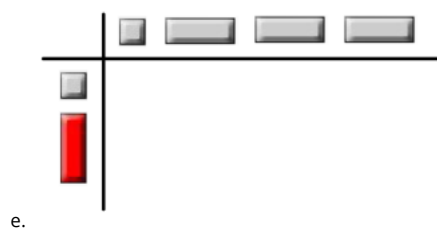
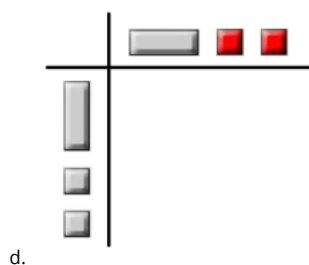
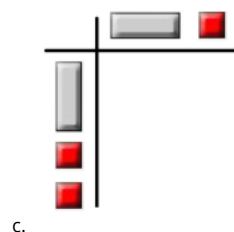
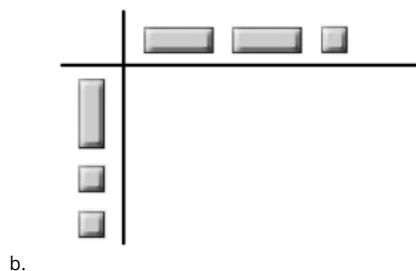
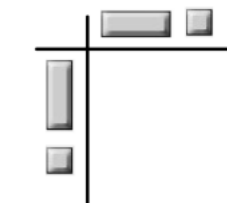
Multiply the binomial by the monomial.

$$-4(-9x + 3)$$

⑤ Question #5: Algebra Tile Diagram

Reference Q.14623

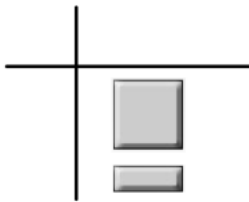
Complete the algebra tile diagrams and determine the binomial products.



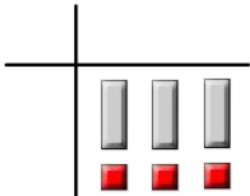
Ⓢ **Question #6: Algebra Tiles**

Reference Q.14496

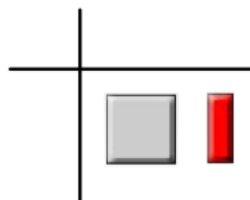
In each case, state the polynomial product in x which is indicated by the algebra tile diagram. Express the product as a sum or difference of terms.



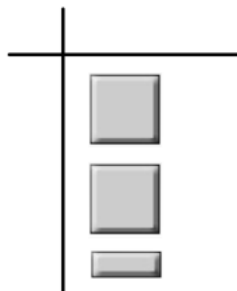
a.



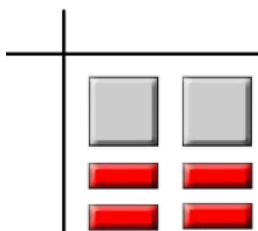
b.



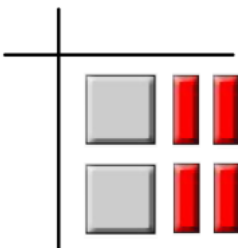
c.



d.



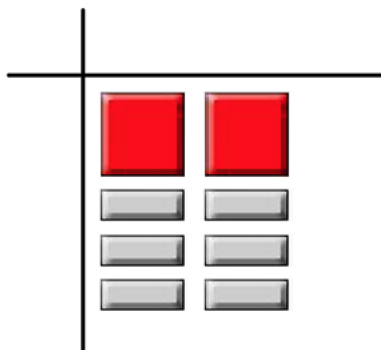
e.



f.

Ⓢ **Question #7: Algebra Tile**

Reference Q.14682



The algebra tile diagram represents the expansion of:

- A. $2x(x + 3)$
- B. $-2x(x + 3)$
- C. $2x(x - 3)$
- D. $-2x(x - 3)$

Ⓢ **Question #8: Finding Incorrect Statement**

Reference Q.14683

Which of the following expansions is incorrect?

- A. $-2x^2(3x + 2) = -6x^3 - 4x^2$
- B. $-4x(2 - x) = -8x + 4x^2$
- C. $-5x(x^2 - 3) = -5x^3 - 15x$
- D. $7x^2(x^2 + 3) = 7x^4 + 21x^2$

Ⓢ **Question #9: Expand the Product**

Reference Q.14629

Expand and simplify where possible.

- a. $(7x - 2)(3x + 5)$
- b. $(2h - 3)(2h - 1)$
- c. $(3z + 4)(3z + 5)$
- d. $(4x - 3)(3x - 4)$
- e. $(8x - 3y)(2x + y)$
- f. $(1 + 3b)^2$
- g. $(x - 2)(6y - 1)$
- h. $(1 + 3y^2)(1 - 3y^2)$
- i. $(x^2 + 7y^2)(2x^2 - 5y^2)$

Ⓢ **Question #10: Polynomial**

Reference Q.14658

A student provides the following expansions for four binomial products.

$$(x + 3)2 = x^2 + 9$$

$$(3x - y)(3x - y) = 9x^2 - 6xy - y^2$$

$$(2x + y)(2x - y) = 2x^2 - y^2$$

$$(5x + 7)^2 = 25x^2 + 35x + 49$$

How many of the student's expansions are incorrect?

- A. One
- B. Two
- C. Three
- D. Four