

**ACTIVITY 25 PRACTICE**

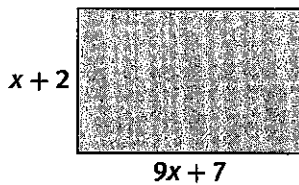
Write your answers on notebook paper.

Show your work.

**Lesson 25-1**

Determine each product.

- $(10 - 3)(10 - 8)$
- $(x - 3)(x - 8)$
- $(y - 7)(y + 2)$
- $(x + 5)(x - 9)$
- $(2y - 6)(3y - 8)$
- $(4x + 3)(x - 11)$
- Which expression represents the area of the rectangle?

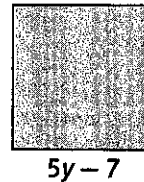


- $10x + 9$
- $9x^2 + 14$
- $20x + 18$
- $9x^2 + 25x + 14$

**Lesson 25-2**

Determine each product.

- $(x - 7)(x + 7)$
- $(y + 6)(y - 6)$
- $(2x - 5)(2x + 5)$
- $(3y + 1)(3y - 1)$
- $(x - 11)^2$
- $(x + 8)^2$
- $(2y - 3)^2$
- $(3y - 2)^2$
- Which expression represents the area of the square?

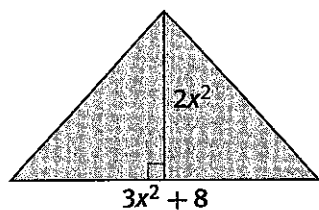


- $20y^2 + 28$
- $20y - 28$
- $25y^2 - 70y + 49$
- $25y^2 - 49$

**ACTIVITY 25***continued***Lesson 25-3**

Determine each product.

17.  $x(x^2 - 7)$
18.  $2x(x^2 - 3x + 2)$
19.  $(x + 2)(4x^2 - 7x + 5)$
20.  $(y - 5)(4y^2 + 5y + 2)$
21.  $(5x - 9)^2$
22.  $(3x - 4)(3x + 4)$
23.  $(2y + 1)(y^2 + 3y - 5)$
24. Which expression represents the area of the triangle? Use the formula  $A = \frac{1}{2}bh$ .



- A.  $3x^4 + x^2$
- B.  $3x^4 + 8x^2$
- C.  $6x^2 + 8$
- D.  $6x^4 + 16x$

Determine each product.

25.  $(x - 1)(7x - 1)(x + 2)$
26.  $(x + 5)(4x - 1)(2x + 3)$
27.  $(y + 1)^3$
28. Devise a plan for finding the product of four polynomials.

**MATHEMATICAL PRACTICES****Look for and Make Use of Structure**

29. Determine each product and describe any patterns you observe.

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

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

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

From the patterns you see, predict the product of  $(x - 1)(x^4 + x^3 + x^2 + x + 1)$ . Describe the pattern that helps you know the answer without needing to multiply.