



**3-70.** Use a generic rectangle to multiply the following expressions. Write each solution both as a sum and as a product.

- a.  $(2x + 5)(x + 6)$
- b.  $(m - 3)(3m + 5)$
- c.  $(12x + 1)(x^2 - 5)$
- d.  $(3 - 5y)(2 + y)$

**3-71.** Find the rule for the pattern represented below.

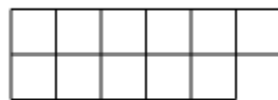
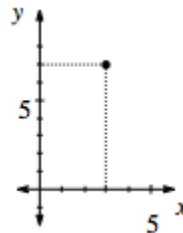


Figure 1



**3-72.** Harry the Hungry Hippo is munching on the lily pads in his pond. When he arrived at the pond, there were 20 lily pads, but he is eating 4 lily pads an hour. Heinrich the Hungrier Hippo found a better pond with 29 lily pads! He eats 7 lily pads every hour.

- a. If Harry and Heinrich start eating at the same time, when will their ponds have the same number of lily pads remaining?
- b. How many lily pads will be left in each pond at that time?

**3-75.** Simplify each of the expressions below. Your final simplification should not contain negative exponents.

a.  $(5x^3)(-3x^{-2})$

b.  $(4p^2q)^3$

c.  $\frac{3m^7}{m^{-1}}$