11.4 Extension: Completing the square

1. Expand each binomial-squared expression to the form $ax^2 + bx + c$.

   (a) $(x + 3)(x + 3)$

   (b) $(x + 2)^2$

   (c) $(x + 5)^2$

   (d) $(x + 7)^2$

2. Simplify each radical.

   (a) $\sqrt{50}$

   (b) $\sqrt{18}$

   (c) $\sqrt{27}$

   (d) $\sqrt{24}$

3. Solve for the appropriate variable (h and r).

   (a) $Area = \frac{1}{2}(14.8)h = 62.9$

   (b) $Area = \pi r^2 = 483$

4. Write down the center and radius of each circle.

(a) $(x-4)^2+(y-3)^2=9$

(c) $x^2+y^2=4$

(b) $(x+5)^2+(y-2)^2=4^2$

(d) $(x+7)^2+(y-2)^2=9^2$