For You to Do

1. $4\sqrt{2}$

2. $2\sqrt{23}$

3. $2\sqrt{5}$

4. $30\sqrt{2}$

2. a. 2   b. 2
   c. 3   d. 10

e. 3
f. The number under the radical on the left side of each equation is divisible by a perfect square.

5. A

6. a. 3   b. 1
   c. −5   d. 12
   e. 6

(Scroll down for worksheet answers)

Simplify.

1) $\sqrt{5} \cdot \sqrt{5}$

    5

2) $\sqrt{10} \cdot \sqrt{2}$

    $2\sqrt{5}$

3) $\sqrt{8} \cdot \sqrt{8}$

    8

4) $\sqrt{20} \cdot \sqrt{10}$

    $10\sqrt{2}$

5) $\sqrt{3} \cdot \sqrt{3}$

    3

6) $\sqrt{5} \cdot \sqrt{12}$

    $2\sqrt{15}$

7) $2\sqrt{2} \cdot \sqrt{12}$

    $4\sqrt{6}$

8) $\sqrt{5} \cdot 2\sqrt{2}$

    $2\sqrt{10}$

9) $\sqrt{6} \cdot -2\sqrt{6}$

    -12

10) $\sqrt{2} \cdot -2\sqrt{5}$

    $-2\sqrt{10}$

11) $\sqrt{6} \cdot -\sqrt{9}$

    $-3\sqrt{6}$

12) $\sqrt{5} \cdot -5\sqrt{5}$

    -25

Simplify.

1) $-5\sqrt{6} - 2\sqrt{6}$
   $-7\sqrt{6}$

2) $-3\sqrt{5} + 2\sqrt{5}$
   $-\sqrt{5}$

3) $-4\sqrt{3} + 3\sqrt{3}$
   $-\sqrt{3}$

4) $-3\sqrt{6} - 4\sqrt{6}$
   $-7\sqrt{6}$

5) $-4\sqrt{10} + 5\sqrt{10}$
   $\sqrt{10}$

6) $-\sqrt{6} - 2\sqrt{6}$
   $-3\sqrt{6}$

7) $-\sqrt{7} - 5\sqrt{7}$
   $-6\sqrt{7}$

8) $-\sqrt{10} - 5\sqrt{10}$
   $-6\sqrt{10}$

9) $-3\sqrt{24} - 3\sqrt{2} + 2\sqrt{2}$
   $-6\sqrt{6} - \sqrt{2}$

10) $-3\sqrt{45} - \sqrt{5} + 2\sqrt{2}$
    $-10\sqrt{5} + 2\sqrt{2}$