

3/12/15

Example #2 - Larger Numbers

$$\sqrt{12,100}$$

Find perfect square, not the number squared

| | |
|--|--------------------------------------|
| Step 1 Write the radicand as a product of two perfect squares. | 12,100 $121 \cdot 100$ |
| Step 2 Determine the square root of each perfect square. | $\sqrt{121}$ $\sqrt{100}$ 11 10 |
| Step 3 Find the product. | $11 \cdot 10 = 110$ |

Examples

$$-\sqrt{4900}$$

①

$$4900$$
$$49 \cdot 100$$

②

$$\sqrt{49} \sqrt{100}$$
$$7 \quad 10$$

③

$$7 \cdot 10 = 70$$

$$-70$$

Remember to move the negative down to the final answer

$$\pm \sqrt{40,000}$$

①

$$40,000$$
$$400 \cdot 100$$

②

$$\sqrt{400} \sqrt{100}$$
$$20 \quad 10$$

③

$$20 \cdot 10 = 200$$

$$\pm 200$$

Remember to move the sign in front down to the final answer