

1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, ...  
Notes: Irrational Square Roots

Simplify.

$$1. \sqrt{63}$$
$$\sqrt{9 \cdot 7}$$
$$3\sqrt{7}$$

$$2. \sqrt{98}$$
$$\sqrt{49 \cdot 2}$$
$$7\sqrt{2}$$

$$3. \sqrt{256}$$
$$16$$

$$4. 2\sqrt{48}$$
$$2\sqrt{16 \cdot 3}$$
$$2 \cdot 4\sqrt{3}$$
$$8\sqrt{3}$$

$$5. 5\sqrt{72}$$
$$5\sqrt{36 \cdot 2}$$
$$5 \cdot 6\sqrt{2}$$
$$30\sqrt{2}$$

$$6. \sqrt{216}$$
$$\sqrt{36 \cdot 6}$$
$$6\sqrt{6}$$

$$7. -3\sqrt{192}$$
$$-3\sqrt{64 \cdot 3}$$
$$-3 \cdot 8\sqrt{3}$$
$$-24\sqrt{3}$$

$$8. \sqrt{2520}$$
$$\sqrt{36 \cdot 70}$$
$$6\sqrt{70}$$