QUICK REVIEW – Sections 9.1 – 9.3

Goals: #1 - I can evaluate and approximate square roots.







- #2 I can solve a quadratic equation by finding square roots.
- #3 I can simplify radical expressions.

List perfect squares below:

2^2	3 ²	4 ²	5 ²	6 ²	7 ²	8 ²	9 ²	10 ²	11 ²	12 ²	13 ²	14 ²	15 ²

Let's keep practicing!: Evaluate the expression.

$$1.\sqrt{169}$$

2.
$$-\sqrt{81}$$

3.
$$\pm \sqrt{400}$$

3.
$$\pm \sqrt{400}$$
 4. $-\sqrt{121}$

5.
$$-\sqrt{196}$$

5.
$$-\sqrt{196}$$
 6. $\sqrt{900}$

7.
$$-\sqrt{100}$$

8.
$$\pm \sqrt{64}$$

Determine whether the number is a perfect square.

Simplify the expression.

1.
$$\sqrt{40}$$

2.
$$-\sqrt{18}$$

4.
$$\sqrt{48}$$

$$5.\,\frac{1}{3}\sqrt{45}$$

$$6.\sqrt{300}$$

7.
$$\frac{1}{2}\sqrt{128}$$

8.
$$\sqrt{108}$$

9.
$$\sqrt{\frac{16}{25}}$$

10.
$$\sqrt{\frac{7}{9}}$$

11.
$$-\sqrt{\frac{8}{2}}$$

12.
$$\sqrt{\frac{11}{36}}$$

13.
$$\sqrt{\frac{3}{10}}$$

14.
$$\sqrt{\frac{1}{7}}$$

15.
$$2\sqrt{\frac{16}{3}}$$

Solve the equation or write *no real solution*. Write the solutions as integers, if possible. Otherwise, write them as radical expressions.

1.
$$x^2 = 25$$

$$2. y^2 = 81$$

$$3.3a^2 = 147$$

$$4. x^2 + 4 = 16$$

$$5.2b^2 - 7 = -7$$

6.
$$16 - x^2 = 12$$

$$7.3 - x^2 = 50$$

$$8.8 - 2x^2 = -33$$

$$9.\,3x^2 - 58 = 50$$

$$10.\,5x^2 + 20 = 4$$