

- Solve. Show works!

1. $\sqrt{x-2} = 5$

2. $7 = \sqrt{x-6}$

3. $\sqrt{x} - 2 = 5$

4. $7 = \sqrt{x} - 6$

5. $x^2 - 7 = 57$

6. $-31 = -4x^2 + 5$

7. $3x^2 + 5 = 53$

8. $\frac{2}{3}\sqrt{x} + 4 = 8$

9. $-2 + 4x^2 = 14$

10. $\sqrt{x+6} = 1$

11. $x^3 - 50 = 75$

12. $\sqrt[3]{27} + x = \sqrt[3]{64}$

Name _____

Estimating Square Roots without a Calculator

Estimate each of the following square roots to the nearest hundredth. Show your work.

1. $\sqrt{12}$

2. $\sqrt{20}$

3. $\sqrt{42}$

4. $\sqrt{33}$

5. Write instructions on how to estimate the square root of a number that is not a perfect square.

Omit

6. Sudip estimates that $\sqrt{62}$ is about six. Do you agree or disagree? Explain.

7. Is $\sqrt{105}$ more or less than 10? Explain.

8. Is 8.5 a good first guess for $\sqrt{72}$? Why or why not?

