Lesson 6.5 Practice: Estimating Roots and Irrational Numbers

School Launch · Pre-Algebra · Unit 6: Exponents and Square Roots · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Between which two consecutive whole numbers does $\sqrt{14}$ lie? Is it rational or irrational? EASY

2. Between which two consecutive whole numbers does $\sqrt{51}$ lie? Is it rational or irrational? EASY

3. Between which two consecutive whole numbers does $\sqrt{35}$ lie? Is it rational or irrational? EASY

4. Between which two consecutive whole numbers does $\sqrt{37}$ lie? Is it rational or irrational? MEDIUM

5. Between which two consecutive whole numbers does $\sqrt{82}$ lie? Is it rational or irrational? MEDIUM

6. Between which two consecutive whole numbers does $\sqrt{26}$ lie? Is it rational or irrational? MEDIUM

7. Between which two consecutive whole numbers does $\sqrt{60}$ lie? Is it rational or irrational? MEDIUM

8. Estimate $\sqrt{68}$ to the nearest tenth without a calculator, then check by squaring. HARD

9. Estimate $\sqrt{143}$ to the nearest tenth without a calculator, then check by squaring. HARD

10. Estimate $\sqrt{124}$ to the nearest tenth without a calculator, then check by squaring. HARD