

Practice 11-1

Square Roots and Irrational Numbers

Estimate to the nearest integer.

1. $\sqrt{17}$ _____

2. $\sqrt{26}$ _____

3. $\sqrt{11}$ _____

4. $\sqrt{95}$ _____

5. $\sqrt{48}$ _____

6. $\sqrt{38}$ _____

Simplify each square root.

7. $\sqrt{7 + 18}$ _____

8. $\sqrt{900}$ _____

9. $-\sqrt{100}$ _____

10. $\sqrt{0.25}$ _____

11. $\sqrt{\frac{16}{81}}$ _____

12. $\sqrt{\frac{9}{25}}$ _____

Identify each number as rational or irrational.

13. $5.7777\dots$ _____

14. $\sqrt{41}$ _____

15. $0.62662\dots$ _____

16. $\sqrt{49}$ _____

Find two integers that make each equation true.

17. $x^2 = 36$ _____

18. $2m^2 = 128$ _____

Use the formula $d = \sqrt{1.5h}$ to estimate the distance to the horizon d in miles for each viewer's eye height h , in feet.

19. $h = 12$ ft

20. $h = 216$ ft
