

Problem Set 49 — Even Answers

2. 40 shoes, 120 boots

4. ≈ 9000
8800 yd

6a. 30° , b. 45° , c. 60°

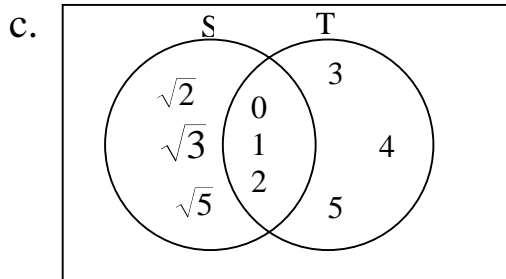
8. $(f + g)(x) = 2x^2 + 4x$
 $\{x \in \mathcal{R}\}$
 $(f + g)(-2) = 0$

10. $\frac{k}{l}(x) = \frac{1}{x}$
 $\{x \in \mathcal{R} \mid x > 0\}$
 $\frac{k}{l}(\pm 1) = \emptyset$

12. range = 7, $\bar{x} = 10$
median = 10, no mode
 $\sigma = \sqrt{6} \approx 2.449$

14a. $S \cup T = \{0, 1, 2, 3, 4, 5, \sqrt{2}, \sqrt{3}, \sqrt{5}\}$

b. $S \cap T = \{0, 1, 2\}$



16a. 10

b. $y = \frac{3}{4}x + \frac{9}{2}$

18. $x = \frac{5}{2} \pm \frac{3\sqrt{5}}{2} \approx -0.854, 5.854$

20. $x = \frac{m^2}{mz - p}$

22. $x = 1, 15$

24a. $\sin B = \frac{12}{31.2} \approx 0.385$

b. $\cos A = \frac{12}{31.2} \approx 0.385$

c. $\tan A = \frac{28.8}{12} \approx 2.4$

26. $\frac{5 - 4\sqrt{2}}{-4} = \frac{4\sqrt{2} - 5}{4}$

28. $7 + 2\sqrt[3]{4}$

30. 1.4×10^{-16}