

Problem Set 47 — Even Answers

2. $R_R = 75$ mph, $T_R = 5$ hr
 $R_J = 25$ mph, $T_J = 15$ hr

4. 175 roses

6. 16 puppies

8. $x = 1 \pm \sqrt{6} \approx -1.449, 3.449$

10. $x = \frac{7}{2} \pm \frac{\sqrt{37}}{2} \approx 0.459, 6.541$

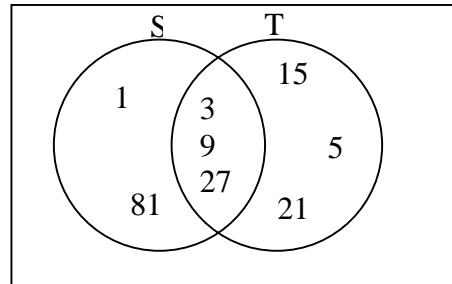
12. range = 4, $\bar{x} = 7$
 median = 7, mode = 7
 $\sigma = \sqrt{2} \approx 1.414$

14. 68.2% of the data is within 5 of 76. 95.4% of the data is within 10 of 76. 4.6% of the data is more than 10 away from 76.

16a. $S \cap T = \{3, 9, 27\}$

b. $S \cup T = \{1, 3, 9, 15, 21, 27, 81\}$

c.



18. $x = 8, y = 37.5, z = 25.5$

20a. $\cos A = \frac{8}{17} \approx 0.471$

b. $\sin B = \frac{12}{25.5} \approx 0.471$

c. $\sin C = \frac{8}{17} \approx 0.471$

22. $x = 70, y = 60, z = 60$

24a. $y = 1$

b. $y = x$

c. $y = -2x + 2$

26. $x = -\frac{13}{2}$

28. $\frac{30 + \sqrt{3}}{39}$

30. 1