

Problem Set 48 — Even Answers

2. walk 12 miles
ride 64 miles

4. 8100 g

6. range = 26, $\bar{x} = 19$
median = 19, mode = 19

8. range = 9, $\bar{x} = 11$
median = 11, no mode
 $\sigma = 3.033$

10. $x = \frac{3}{2} \pm \frac{\sqrt{37}}{2} \approx -1.541, 4.541$

12. $(k + 1)(x) = 4x + 1$
 $\{x \in \mathfrak{R}\}$
 $(k + 1)(2) = 9$

14. $(g - t)(x) = x^{\frac{3}{2}} - x^{\frac{1}{2}}$
 $\{x \in \mathfrak{R} \mid x \geq 0\}$
 $(g - t)(4) = 6$

16a. rational, real
b. integer, rational, real
c. rational, real

18. $27x^3 - 54x^2y + 36xy^2 - 8y^3$

20. $\sin B = \frac{9.035}{17} \approx 0.531$

$\cos A = \frac{14.4}{17} \approx 0.847$

$\tan B = \frac{9.035}{14.4} \approx 0.627$

22. A = 70, B = 110

C = 35, D = 35

$A = \frac{28}{9}\pi \text{ cm}^2 \approx 9.774 \text{ cm}^2$

24. $p = -2, \frac{5}{2}$

26. $\frac{x(\text{cm} + x)}{\text{acm} + \text{ax} + \text{bm}}$

28. $-\frac{2\sqrt{15}}{5} + 6\sqrt{105}$

30. 30