

## Problem Set 52 — Even Answers

2.  $P(\text{HUM}) = \frac{14}{15}$

4. 60 tons

6.  $B = 59$   
 $y = 14 \sin 31^\circ \approx 7.211$   
 $x = 14 \sin 31^\circ \approx 12.000$

8.  $\approx 2$

10a.  $\approx 6 \times 10^{-5}$ ,  $8.75 \times 10^{-5}$   
 b.  $\approx 3 \times 10^{-37}$ ,  $2.848 \times 10^{-37}$

12a. range = 100, median = 50  
 $Q_1 = 40$ ,  $Q_3 = 65$ , IQR = 25  
 b. 25% of the scores are between 40 and 50. 25% of the scores are between 50 and 65. 25% of the scores are above 65, with at least one perfect score of 100. 25% of the scores are below 40, with at least one score of 0, but it is an outlier.

14. 68.2% of the data is between 22 and 38. 95.4% of the data is between 14 and 46. 2.3% of the data is greater than 46, and 2.3% of the data is less than 14.

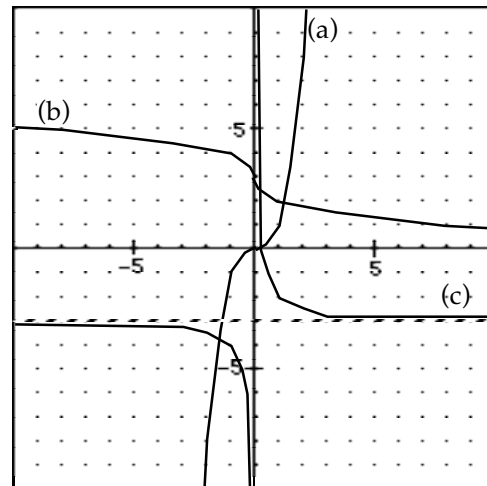
16a.  $fg(x) = 9x^4 - 3x^3 - 3x^2 + x$   
 b.  $\{x \in \mathcal{R}\}$   
 c.  $fg(2) = 110$

18.  $x = -6, -4$

20a. irrational, real  
 b. irrational, real  
 c. counting, whole, integer, rational, real

22.  $x = -8, 7$

24.  $\frac{4\sqrt{2} - 23}{71}$



26.

28.  $y = -\frac{3}{7}x + \frac{26}{7}$

30.  $x = \frac{39}{7}$ ,  $y = 12$ ,  $z = 16$