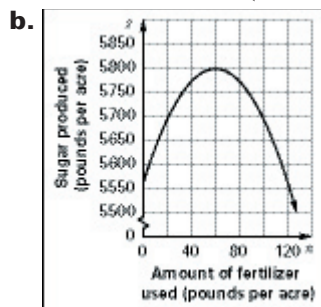


Answer Key

Lesson 4.10

Problem Solving Workshop: Mixed Problem Solving

1. a. $s = -0.0655(n - 60)^2 + 5798$



c. about 5800 lb/acre

2. a. $R = (40 - x)(80 + 5x)$

b. $(40 - x)(80 + 5x) > 3600$ c. $4 < x < 20$

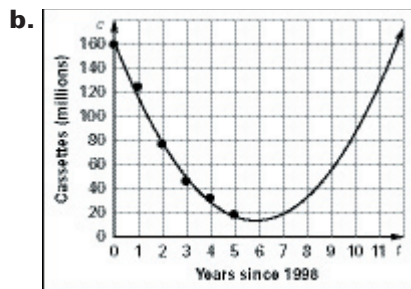
3. Answers will vary.

4. a. $-0.013x^2 + 0.67x - \frac{10}{3} > 0$ b. Yes; The football is about 0.49 yd, or 1.5 ft, above the crossbar when kicked from 45 yd.

5. 25 6. a. $y = -16x^2 + 38x + 6$

b. about 2.5 sec c. Write the equation in vertex form, use the graph to find the vertex, complete the square; about 28.6 ft 7. 2 ft; The other solution is greater than either side length.

8. a. $y = 4.28x^2 - 50.41x + 162$



c. No; It is unlikely that the shipments will rise again.