Lesson 6.5 Practice: Applications of Systems

School Launch · Algebra I · Unit 6: Systems of Equations and Inequalities · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. A concert sold 104 tickets. There were 46 more adult tickets than student tickets. How many of each were sold? EASY

2. A concert sold 129 tickets. There were 51 more student tickets than adult tickets. How many of each were sold? EASY

3. A concert sold 60 tickets. There were 18 more adult tickets than student tickets. How many of each were sold? EASY

4. Adult tickets cost $12 and student tickets $4. A school sold 100 tickets for $824. How many of each? MEDIUM

5. Adult tickets cost $9 and student tickets $6. A school sold 152 tickets for $1,101. How many of each? MEDIUM

6. Adult tickets cost $8 and student tickets $5. A school sold 136 tickets for $956. How many of each? MEDIUM

7. Adult tickets cost $12 and student tickets $4. A school sold 137 tickets for $1,068. How many of each? MEDIUM

8. A boat travels 44 miles downstream in 2 hours and returns upstream in \frac{22}{7} hours. Find the speed of the boat in still water and of the current. HARD

9. A boat travels 66 miles downstream in 3 hours and returns upstream in \frac{11}{2} hours. Find the speed of the boat in still water and of the current. HARD

10. A boat travels 42 miles downstream in 3 hours and returns upstream in \frac{7}{2} hours. Find the speed of the boat in still water and of the current. HARD