

6.4 Applications for Systems of Equations

Period _____

You must: 1) identify your variables, 2) write a system to model the problem, and 3) solve the system and 4) give the answer to the problem.

- 1) Shanice and Wilbur are selling flower bulbs for a school fundraiser. Customers can buy bags of windflower bulbs and bags of daffodil bulbs. Shanice sold 1 bag of windflower bulbs and 6 bags of daffodil bulbs for a total of \$133. Wilbur sold 1 bag of windflower bulbs and 10 bags of daffodil bulbs for a total of \$213. What is the cost each of one bag of windflower bulbs and one bag of daffodil bulbs?
- 2) The school that Micaela goes to is selling tickets to a choral performance. On the first day of ticket sales the school sold 2 adult tickets and 8 child tickets for a total of \$98. The school took in \$46 on the second day by selling 4 adult tickets and 1 child ticket. What is the price each of one adult ticket and one child ticket?
- 3) Totsakan and Kim are selling cheesecakes for a school fundraiser. Customers can buy French silk cheesecakes and strawberry cheesecakes. Totsakan sold 10 French silk cheesecakes and 6 strawberry cheesecakes for a total of \$188. Kim sold 6 French silk cheesecakes and 3 strawberry cheesecakes for a total of \$105. Find the cost each of one French silk cheesecake and one strawberry cheesecake.

- 4) The senior classes at High School A and High School B planned separate trips to Yellowstone National Park. The senior class at High School A rented and filled 3 vans and 1 bus with 68 students. High School B rented and filled 5 vans and 1 bus with 80 students. Every van had the same number of students in it as did the buses. Find the number of students in each van and in each bus.
- 5) Danielle and Amanda are selling cookie dough for a school fundraiser. Customers can buy packages of sugar cookie dough and packages of double chocolate cookie dough. Danielle sold 9 packages of sugar cookie dough and 6 packages of double chocolate cookie dough for a total of \$135. Amanda sold 4 packages of sugar cookie dough and 6 packages of double chocolate cookie dough for a total of \$110. Find the cost each of one package of sugar cookie dough and one package of double chocolate cookie dough.
- 6) Jennifer and Kathryn are selling fruit for a school fundraiser. Customers can buy small boxes of oranges and large boxes of oranges. Jennifer sold 2 small boxes of oranges and 8 large boxes of oranges for a total of \$176. Kathryn sold 6 small boxes of oranges and 4 large boxes of oranges for a total of \$128. What is the cost each of one small box of oranges and one large box of oranges?