

### Section 7.4: Applications of Linear Systems Examples

**Write a system of equations that can be used to solve the given problem. Then solve the system.**

- a) A store sold 28 pairs of cross-trainer shoes for a total of \$2200. Style A sold for \$70 per pair and Style B sold for \$90 per pair. How many of each style were sold?
- b) Tickets to a local movie were sold at \$7.50 for adults and \$4.00 for students. There were 80 tickets sold for a total of \$425. How many adult tickets and student tickets were sold?
- c) HersheyPark is a popular field trip destination. This year the senior class at Henderson and the senior class at East both planned trips there. The senior class at Henderson rented and filled 13 vans and 4 buses with 218 students. East rented and filled 10 vans and 13 buses with 386 students. Each van and each bus carried the same number of students. Find the number of students in each van and each bus

d) Find the value of two numbers if their sum is 19 and their difference is 5.

e) A rectangle is 5 times longer than it is wide. The perimeter is 36 cm. Write and solve a system of equations to find the dimensions of the rectangle.

a) Mark and Sumalee are selling flower bulbs for a school fundraiser. Customers can buy bags of wildflower bulbs and packages of crocus bulbs. Mark sold 11 bags of wildflower bulbs and 9 packages of crocus bulbs for a total of \$367. Sumalee sold 12 bags of wildflower bulbs and 11 packages of crocus bulbs for a total of \$424. What is the cost each of one bag of wildflower bulbs and one package of crocus bulbs?