

Systems of Equations, Day 5

1. There were a total of 120 vehicles registered for the bicycle/tricycle race. There were a total of 286 wheels altogether from both bicycles and tricycles.

a. There are two equations you can find in the description above. Write them and define your variables.

Solve the system of equation using substitution.

c. Explain what your solution means in this problem.

2. Redwood is having a fundraiser and contacted two hat design companies to see their prices. HatsVille charges a \$40 design fee plus \$2.50 per hat that you order. Cape Hat-R-Us charges a \$20 design fee and \$5 per hat that you order.

a. There are two equations you can find in the description above. Write them and define your variables.

b. For how many hats will the orders be the same price? Use substitution to solve this problem.

c. What will be the price if the two companies' price is the same?

3. Aaron runs 7 miles per week and increases his distance by 0.5 miles per week. Peter runs 1 mile per week and increases his distance by 1.5 miles every week.

a. In how many weeks will they be running the same distance? Use substitution to solve this problem.

b. What will the distance be then?