

5. Your family goes to a restaurant for dinner. There are 6 people in your family. Some order the chicken dinner for \$14.80 and some order the steak dinner for \$17. If the total bill was \$91, how many people ordered each type of dinner?  $x = \text{chicken}$   $y = \text{steak}$

$$\begin{aligned} \text{Total orders: } x + y &= 6 \rightarrow y = -x + 6 \\ \text{Total \$: } 14.80x + 17y &= 91 \end{aligned}$$
  

$$14.80x - 17x + 102 = 91$$

$$-2.2x + 102 = 91$$

$$-2.2x = -11$$

$$x = 5$$
  

$$\begin{aligned} x + y &= 6 \\ 5 + y &= 6 \\ y &= 1 \end{aligned}$$
  

Five people ordered chicken and one person ordered steak.

6. You bought the meat for Saturday's cookout. A package of hot dogs cost \$1.60 and a package of hamburger cost \$5. You bought a total of 8 packages of meat and you spent \$23. How many packages of hamburger meat did you buy?

3 packages of hamburger meat

7. Casey orders 3 pizzas and 2 orders of breadsticks for a total of \$29.50. Rachel orders 2 pizzas and 3 orders of breadsticks for a total of \$23. How much does a pizza cost?

$$\begin{aligned} \text{Total 1: } 3x + 2y &= 29.50 \rightarrow 6x + 4y = 59 \\ \text{Total 2: } 2x + 3y &= 23 \rightarrow -6x - 9y = -69 \end{aligned}$$
  

$$\begin{array}{r} 6x + 4y = 59 \\ -6x - 9y = -69 \\ \hline -5y = -10 \\ y = 2 \end{array}$$
  

$$\begin{aligned} 2x + 3y &= 23 \\ 2x + 3(2) &= 23 \\ 2x + 6 &= 23 \\ 2x &= 17 \\ x &= 8.50 \end{aligned}$$
  

It costs \$8.50 per pizza

8. Rent-A-Car rents compact cars for a fixed amount per day plus a fixed amount for each mile driven. Benito rented a car for 6 days, drove it 550 miles, and spent \$337. Lisa rented the same car for 3 days, drove it 350 miles, and spend \$185. What is the charge per day and the charge per mile for the compact car?

It costs \$36 per day and 22¢ per mile

9. Beach Hotel in Cancun is offering two weekend specials. One includes a 2-night stay with 3 meals and cost \$195. The other includes a 3-night stay with 5 meals and cost \$300. What is the cost of a single meal?  $x = \text{cost per night}$   $y = \text{cost per meal}$

$$\begin{aligned} \text{Total 1: } 2x + 3y &= 195 \rightarrow 6x + 9y = 585 \\ \text{Total 2: } 3x + 5y &= 300 \rightarrow -6x - 10y = -600 \end{aligned}$$
  

$$\begin{array}{r} 6x + 9y = 585 \\ -6x - 10y = -600 \\ \hline -y = -15 \\ y = 15 \end{array}$$
  

Each meal costs \$15.