

1. Grandma's Bakery sells pies and cakes. On Thursday, they sold 12 pies and 18 cakes and collected a total of \$281.70. On Friday, they sold 15 pies and 9 cakes and collected a total of \$203.76. How much would they collect over the weekend if they sold 24 pies and 24 cakes?

I need to figure out the price of pies & cakes.  
let  $x$  = price of pie &  $y$  = price of cakes.

Then,

$$\begin{aligned} 12x + 18y &= 281.70 && \& \\ 15x + 9y &= 203.76 \end{aligned}$$

I will use elimination.

$$\begin{array}{r} 12x + 18y = 281.70 \longrightarrow 12x + 18y = 281.70 \\ 2(15x + 9y = 203.76) \longrightarrow (30x + 18y = 407.52) \end{array}$$

$$\begin{array}{r} -18x = -125.82 \\ -18 \quad -18 \end{array}$$

$$x = 6.99$$

Plug in  $x = 6.99$  to solve for  $y$ .

$$\begin{array}{r} 12(6.99) + 18y = 281.70 \\ 83.88 + 18y = 281.70 \\ -83.88 \quad -83.88 \\ \hline 18y = 197.82 \end{array}$$

$$\frac{18y}{18} = \frac{197.82}{18}$$

$$y = 10.99$$

**ANSWER**

So 24 pies & 24 cakes would cost:

$$24(6.99) + 24(10.99) = 431.52$$

Double Check

Plug in Both  $x$  &  $y$

$$12(6.99) + 18(10.99) = 281.70$$

$$83.88 + 197.82 = 281.70$$

✓

$$15(6.99) + 9(10.99) = 203.76$$

$$104.85 + 98.91 = 203.76$$

✓

2. Rosa is in charge of buying supplies for the Homecoming Dance. Three rolls of streamers and 15 bags of balloons cost \$30. Two rolls of streamers and 4 bags of balloons costs \$11. How much would she spend if she needs buy 10 bags of balloons and 10 rolls of streamers?