

Solve by elimination:

$$\begin{aligned} -7x + 5y &= 7 \\ 14x + 10y &= -14 \end{aligned}$$

Solve by substitution:

$$\begin{aligned} 4x + 6y &= -10 \\ x &= 4 + 5y \end{aligned}$$



Roberto has 16 coins in his pocket consisting of loonies and toonies. How many of each does he have if the total amount of money he has is \$27.

Solve by elimination:

$$-7x + 5y = 7 \quad (1)$$

$$14x + 10y = -14 \quad (2)$$

$$(1) \times 2 \quad -14x + 10y = 14 \quad (3)$$

$$(2) \quad \underline{14x + 10y = -14}$$

$$(3) + (2) \quad 20y = 0$$

$$\underline{y = 0} \quad (4)$$

$$\text{Sub } (4) \text{ in } (1) \quad -7x + 5(0) = 7$$

$$-7x = 7$$

$$\underline{x = -1}$$

$$(-1, 0)$$

Solve by substitution:

$$4x + 6y = -10$$

$$x = 4 + 5y$$

$$4(4 + 5y) + 6y = -10$$

$$16 + 20y + 6y = -10$$

$$20y + 6y = -10 - 16$$

$$26y = -26$$

$$y = -1$$

$$x = 4 + 5(-1)$$

$$x = 4 - 5$$

$$x = -1$$

$$(-1, -1)$$

Roberto has 16 coins in his pocket consisting of loonies and toonies. How many of each does he have if the total amount of money he has is \$27.

$$\begin{array}{r}
 L + T = 16 \quad \textcircled{1} \\
 -1L + -2T = -27 \quad \textcircled{2} \\
 \hline
 \textcircled{1} - \textcircled{2} \quad -1T = -11 \\
 \quad \quad \quad T = 11 \quad \textcircled{3} \\
 \hline
 \text{Sub } \textcircled{3} \text{ in } \textcircled{1} \quad L + 11 = 16 \\
 \quad \quad \quad L = 5 \\
 \hline
 \end{array}$$

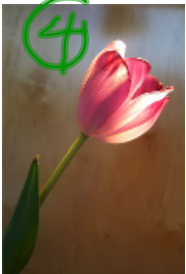
Roberto has 5 loonies and 11 toonies.

Wilbur and Mary are selling flower bulbs for a school fundraiser. Customers can buy packages of tulip bulbs and bags of daffodil bulbs. Wilbur sold 6 packages of tulip bulbs and 6 bags of daffodil bulbs for a total of \$114. Mary sold 12 packages of tulip bulbs and 2 bags of daffodil bulbs for a total of \$78. Find the cost of a package of tulip bulbs and a bag of daffodil bulbs.



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④



① × 2
②
③ - ②

Sub ④ in ①

$$\begin{array}{r}
 6t + 6d = 114 \quad \textcircled{1} \\
 12t + 2d = 78 \quad \textcircled{2} \\
 \hline
 12t + 12d = 228 \quad \textcircled{3} \\
 -12t + -2d = -78 \\
 \hline
 10d = 150 \\
 d = 15 \quad \textcircled{4} \\
 \hline
 6t + 6(15) = 114 \\
 6t + 90 = 114 \\
 6t = 24 \\
 t = 4
 \end{array}$$

⑤

