Conditions

matrix[2x_5y]+matrix[x-y_-6x]=matrix[6_2]

solve the following equation for x and y.

Solution

$$\begin{cases} 2x + x - y = 6 \\ 5y - 6x = 2 \end{cases}$$

$$\begin{cases} 3x - y = 6 \\ 5y - 6x = 2 \end{cases}$$

$$3x = 6 + y$$

$$5y - 12 - 2y = 2$$

$$3y = 14$$

$$y = \frac{14}{3}$$

$$x = \frac{6 + y}{3} = \frac{32}{9}$$

Answer: $x = \frac{32}{9}$, $y = \frac{14}{3}$