

Method 3: Multiply one or both equations by a constant so at least 1 pair of like terms has the opposite coefficients

$$\begin{array}{r} -6x + 5y = 25 \\ 3(-2x - 4y = 14) \end{array} \rightarrow \begin{array}{r} \cancel{-6x} + 5y = 25 \\ \cancel{6x} + 12y = -42 \\ \hline 17y = -17 \\ \boxed{y = -1} \end{array}$$

$$\begin{array}{l} -6x + 5(-1) = 25 \\ -6x - 5 = 25 \\ -6x = 30 \\ \boxed{x = -5} \end{array}$$

$$\boxed{-5, -1} \text{ solution}$$