Two-variable systems: substitution and elimination — Further practice

Year 7, lower volume • text pp. 51–60 • textbook lessons 26–30

Further practice 11

Solve the system. Show elimination and check every original equation.

$$\begin{cases} (1)x + (1)y = 9 \\ (1)x + (-1)y = 3 \end{cases}$$

Further practice 12

Solve the system. Show elimination and check every original equation.

$$\begin{cases} (2)x + (3)y = 13 \\ (2)x + (-1)y = 1 \end{cases}$$

Further practice 13

Solve the system. Show elimination and check every original equation.

$$\begin{cases} (3)x + (2)y = 19 \\ (5)x + (-3)y = 0 \end{cases}$$

Further practice 14

Solve the system. Show elimination and check every original equation.

$$\begin{cases} (1)x + (1)y = 1 \\ (2)x + (-1)y = -7 \end{cases}$$

Extension 15

Describe every real solution of the system. Explain why two written equations do not guarantee a unique pair.

$$\begin{cases} (1)x + (1)y = 6 \\ (2)x + (2)y = 12 \end{cases}$$

Extension 16

Decide whether the system has a real solution. Explain by elimination.

$$\begin{cases}(1)x+(1)y=6\\(2)x+(2)y=13\end{cases}$$