Simultaneous Equations by Elimination

1

Solve the simultaneous equations.

(1) $4x + \boxed{y} = 17$
(2) $2x + \boxed{y} = 11$
(1) − (2)

$2x = 6$
$x = 3$

$x =$ ____, $y =$ ____

Check ____

2

Solve the simultaneous equations.

(1) $3x + \boxed{2y} = 18$
(2) $5x - \boxed{2y} = 14$
(1) + (2)

$8x = 32$

$x =$ ____, $y =$ ____

Check ____

3

Solve the simultaneous equations.

(1) $\boxed{2x} + 3y = 13$
(2) $\boxed{4x} + y = 11$
(1) × 2

(3) $\boxed{4x} + 6y = 26$

$x =$ ____, $y =$ ____

Check ____

4

Solve the simultaneous equations.

(1) $3x + 4y = 23$
(2) $2x - 2y = 6$
(2) × 2

$x =$ ____, $y =$ ____

Check ____

5

Solve the simultaneous equations.

(1) $3x + 2y = 12$
(2) $2x + 3y = 13$

$x =$ ____, $y =$ ____

Check ____

6

Solve the simultaneous equations.

(1) $4x + 3y = 6$
(2) $3x - 2y = 13$

$x =$ ____, $y =$ ____

Check ____

7

Lena solves these simultaneous equations.

(1) $x + 3y = 11$
(2) $2x + y = 7$

She writes (1) × 2: $2x + 6y = 11$.
Explain her mistake.
Then solve the equations.

Answer ____

8

Jamal says $x = 4$, $y = 1$ is the solution of these equations.

(1) $3x - 2y = 10$
(2) $x + 4y = -6$

Check it in both equations.
Then find the right solution.

Answer ____

Simultaneous Equations by Elimination *further practice*

9

Solve the simultaneous equations.

(1) $5x + 3y = 7$

(2) $3x + 2y = 5$

Answer _____

10

Solve the simultaneous equations.

(1) $4a + 5b = 7$

(2) $3a - 2b = 11$

Answer _____

11

Solve the simultaneous equations.

(1) $4x + y = 5$

(2) $2x + 3y = 10$

Answer _____

12

Which letter is quicker to eliminate here? Explain why.
Then solve the equations.

(1) $3x + 2y = 4$

(2) $5x + 4y = 6$

Answer _____

13

Ben works out (1) − (2) and gets $-3x + 6y = 12$.

(1) $2x + 3y = 13$

(2) $5x - 3y = 1$

What should he have done?
Solve the equations.

Answer _____

14

Solve the simultaneous equations.

(1) $4x - 5y = 23$

(2) $3x - 2y = 12$

Answer _____

15

Write a pair of simultaneous equations with the solution $x = 3, y = -1$, where you multiply one equation and then add.

Answer _____

16

Priya says $x = 2, y = 5$ solves these, because it works in (1).

(1) $x + y = 7$

(2) $3x - y = 5$

Explain why she is wrong.
Then solve the equations.

Answer _____