

TARGET To find pairs of numbers that satisfy number sentences involving two unknowns.

Examples

Find both possible solutions.

$$4x + 3y = 23$$

Possible solutions

$$x = 2, y = 5$$

$$x = 5, y = 1$$

$$3a + 2b = 11$$

Possible solutions

$$a = 1, b = 4$$

$$a = 3, b = 1$$

Find two possible solutions.

$$6x - y = 9$$

Solutions

$$x = 2, y = 3$$

$$x = 3, y = 9$$

and so on

$$2x - 3y = 7$$

Solutions

$$x = 5, y = 1$$

$$x = 8, y = 3$$

and so on

A

Copy and complete to find all the possible solutions for the equation.

1 $x + y = 4$

$$x = 1, y = \square$$

$$x = \square, y = 2$$

$$x = \square, y = \square$$

2 $x + 3y = 8$

$$x = 2, y = \square$$

$$x = \square, y = \square$$

3 $2x + y = 7$

$$x = 3, y = \square$$

$$x = \square, y = 5$$

$$x = \square, y = \square$$

Find all the possible solutions for values of both x and y no greater than 10.

4 $2x - y = 7$

$$x = 6, y = \square$$

$$x = \square, y = 1$$

$$x = \square, y = 9$$

$$x = \square, y = \square$$

$$x = \square, y = \square$$

B

Find both possible solutions.

1 $2x + y = 5$

2 $5x + y = 13$

3 $3x + 4y = 30$

4 $2x + 3y = 15$

5 $5a + 2b = 26$

6 $4a + 5b = 52$

7 $7s + 2t = 31$

8 $5s + 3t = 34$

Find two possible solutions.

9 $x - 2y = 11$

10 $3x - 2y = 2$

11 $4x - 2y = 10$

12 $3x - y = 13$

13 $10p - 3q = 1$

14 $5c - 4d = 4$

15 $4m - 3n = 8$

16 $5v - 3w = 5$

C

Find all possible solutions.

1 $6x + y = 29$

2 $4x + 3y = 43$

3 $3x + 2y = 28$

4 $7x + 2y = 46$

5 $9e + 4f = 100$

6 $5y + 3z = 57$

7 $10k + 3l = 98$

8 $5g + 4h = 89$

Find three possible solutions.

9 $6p - 5q = 19$

10 $3d - 2e = 23$

11 $4r - 3s = 22$

12 $7g - 4h = 15$

13 $5w - 3x = 38$

14 $10k - 7m = 12$

15 $8t - 3u = 15$

16 $9z - 4a = 26$