

1 Solve the following pairs of equations using the substitution method.

Check all solutions.

a $x + y = 3$ and $y = 4$

c $x + y = -3$ and $y = x + 1$

e $2x + y = 9$ and $y = x - 3$

g $2x - y = 10$ and $y = 10 - 3x$

i $2x + y = 14$ and $x = 6$

b $x + y = 7$ and $y = x + 3$

d $x - y = 5$ and $y = 1 - x$

f $2x + y = 8$ and $y = x - 4$

h $x + 2y = 9$ and $y = 2x - 3$

j $2x + y = 7$ and $x = y - 4$

2 Use one of each pair of equations to express y in terms of x . Then use the method of substitution to solve the equations. Check all solutions.

a $x + 2y = 4$

$x - y = 7$

d $x - y = 2$

$x + 2y = 11$

g $x + 2y = 11$

$2x - y = 2$

b $2x - 3y = 4$

$2x + y = 6$

e $2x - y = -8$

$2x + y = 0$

h $3x + y = 13$

$x + 2y = 1$

c $x + 2y = 8$

$x + y = -2$

f $x + y = 5$

$2x + y = 7$

i $3x + 2y = 2$

$2x - y = -8$

3 Solve the following simultaneous equations using the substitution method.

a $2x - y = 1$

$4x + 2y = 5$

c $m - 2n = 3$

$5m + 2n = 2$

b $3a + b = 6$

$9a + 2b = 1$

d $4x - 2y = 1$

$x + 3y = -1$

4 Solve the following pairs of simultaneous equations.

a $2a - 3b = 1$

$4a + 2b = 5$

c $3m - 4n = 1$

$2m + 3n = 4$

b $7x - 2y = 2$

$3x + 4y = 8$

d $2x - 3y = 10$

$5x - 3y = 3$