

SOLVING SIMULTANEOUS EQUATIONS

1) Solve each of the following pairs of equations by either adding or subtracting.

a $x + y = 10$

$2x - y = 8$

d $x + 5y = 11$

$2x + 5y = 1$

g $-x - 3y = -9$

$x - 2y = 1$

b $2x - y = 10$

$4x + y = 14$

e $x - 2y = 6$

$3x - 2y = 2$

h $4x - y = 20$

$3x - y = 17$

c $3x + y = -1$

$3x - 2y = -7$

f $2x + 5y = 3$

$-2x - y = -7$

i $6x + 5y = 9$

$x - 5y = 19$

2) Solve each of the following pairs of equations by elimination.

a $x - 2y = 1$

$2x + y = 7$

b $4x + 3y = 11$

$x - y = 8$

c $x - 5y = 13$

$3x - y = -9$

d $2x + y = 10$

$3x - 4y = 26$

3) Pick **six** questions to solve. You **must** pick one from each row.

$3x - y = 1$	$2x + 3y = 8$	$2x - 2y = 9$	$5x - 3y = 5$
$x + y = 3$	$2x + y = -4$	$4x - 2y = 16$	$5x + y = -5$
$3x + 2y = 8$	$3x + y = 9$	$3m - 2n = 4$	$3a + 4b = 6$
$2x - y = 5$	$x - 2y = 10$	$m + 4n = 6$	$3b = 7 - a$
$3x - 5y = 11$	$4x + 5y = -7$	$7x - 3y = -8$	$2x + 5y = 0$
$2x + 3y = 1$	$3x + 2y = -7$	$2x + 4y = -12$	$3x - 8y = 31$
$2x - 3y = -27$	$3x + 4y = -4$	$5p - 4q = 22$	$2f - 3g = 6$
$3x + 2y = -8$	$7x + 6y = -11$	$3p + 5q = -9$	$5f - 4g = 1$

4) Charlie is making costumes for a school show.

One day he made 2 cloaks and 3 dresses.

The total amount of material he used was 9.6 square metres.

(a) Write down an equation to illustrate this information.

1

(b) The following day Charlie made 3 cloaks and 4 dresses.

The total amount of material he used was 13.3 square metres.

Write down an equation to illustrate this information.

1

(c) Calculate the amount of material required to make one cloak and the amount of material required to make one dress.

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