## Linear simultaneous equations

## Question 1

Solve the simultaneous equations

$$
4 x+2 y=9 x-4 y=9
$$

## Question 2

Solve the simultaneous equations

$$
5 x+y=21 x-3 y=9
$$

## Question 3

Solve these simultaneous equations algebraically.

$$
\begin{aligned}
& 3 x-2 y=17 \\
& 4 x+3 y=17
\end{aligned}
$$

## Question 4

Solve the simultaneous equations

$$
\begin{gathered}
x+3 y=12 \\
5 x-y=4
\end{gathered}
$$

## Question 5

If $6 x-y=21$ and $6 y-x=14$, what is the value of $x-y$ ?

$$
x-y=
$$

$\qquad$

## Question 6

The dimensions, in centimetres, of this rectangle are shown as algebraic expressions.


Work out the length and width of the rectangle.

```
length =
```

$\qquad$

``` cm width \(=\)
``` \(\qquad\)
``` cm
```


## Question 7

The $n$th term of a sequence is given by $a n^{2}+b n$ where $a$ and $b$ are integers.
The 2 nd term of the sequence is -2 The 4 th term of the sequence is 12
Find the 6th term of the sequence.

