

a)

Example

A straight line has a gradient of 2
The point (5, 3) lies on the line.
What is the equation of line?

What is the equation of a straight line form?	$y = mx + c$
What is the gradient?	$y = 2x + c$
How does the point (5,3) relate to our equation?	When $x=5, y=3$ $3 = 2(5) + c$
Can we solve for c ?	$3 = 10 + c$ <small>-10 -10</small> $-7 = c$
What is gradient and y-intercept and hence the equation?	$y = 2x - 7$

b)

Complete the working out

A straight line has a gradient of 3
The point (4, 16) lies on the line.
What is the equation of line?

What is the equation of a straight line form?	$y = mx + c$
What is the gradient?	$y = 3x + c$
How does the point (4, 16) relate to our equation?	When $x=4, y=16$ $16 = 3(4) + c$
Can we solve for c ?	$\square = \square + c$ $\square = c$
What is gradient and y-intercept and hence the equation?	$y = \square x + \square$

c)

Complete the working out

A straight line has a gradient of 3
The point (11, 7) lies on the line.
What is the equation of line?

What is the equation of a straight line form?	$y = mx + c$
What is the gradient?	$y = 3x + c$
How does the point (11, 7) relate to our equation?	When $x = \square, y = \square$ $\square = 3(\square) + c$
Can we solve for c ?	
What is gradient and y-intercept and hence the equation?	$y = \square x + \square$

d)

A straight line has a gradient of 8
The point (3 , 5) lies on the line.
What is the equation of line?

What is the equation of a
straight line form?

$$y = \square x + \square$$

e)

A straight line has a gradient of 8
The point (-3 , 5) lies on the line.
What is the equation of line?

f)

A straight line has a gradient of -7
The point (-4 , 2) lies on the line.
What is the equation of line?