Plot other quadratic equations

Maths

Mr Clasper

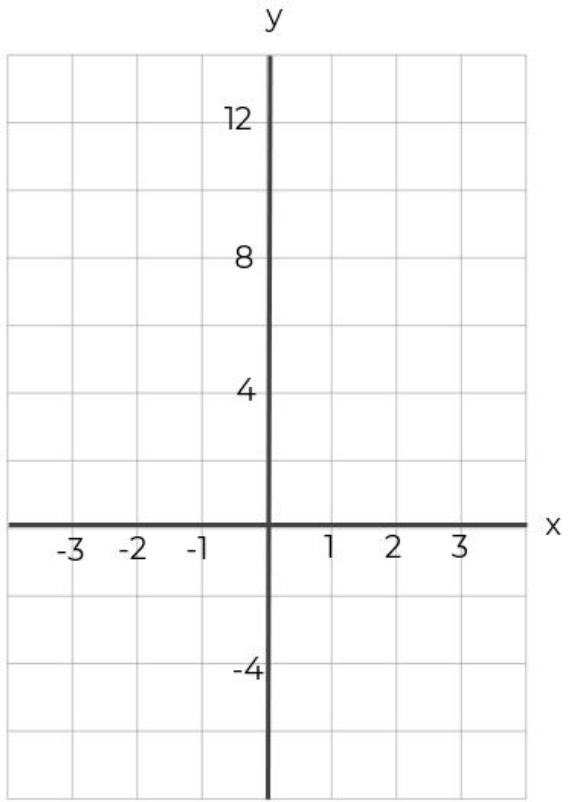
Plot other quadratic equations

1. a) Complete the table of values for the equation $y = x^2 - 2x - 4$.

x	-3	-2	-1	0	1	2	3
x^2							
-2x							
-4							
y							

b) On the grid opposite plot the graph of

$$y = x^2 - 2x - 4$$

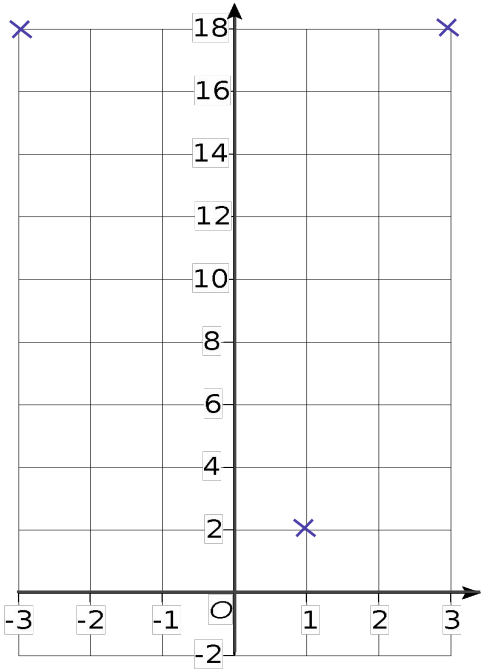


Plot other quadratic equations

2. a) Complete the table of values for $y = 2x^2$

x	-3	-2	-1	0	1	2	3
y	18				2		18

b) Plot, $y = 2x^2$

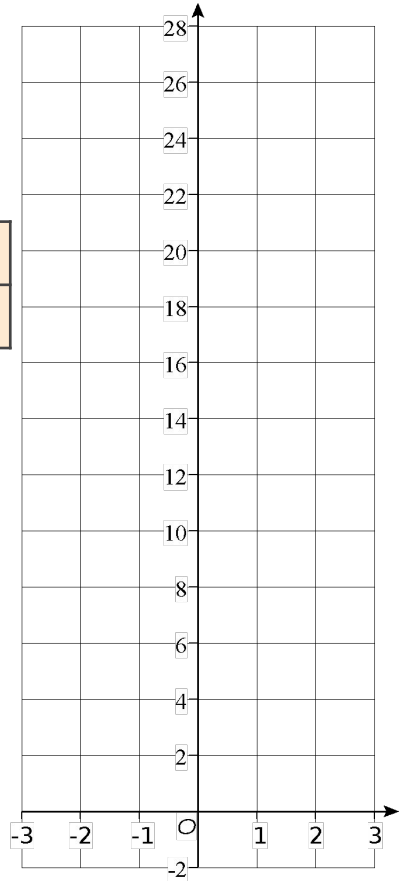


3. a) Complete the table of values for $y = 3x^2$.

x	-3	-2	-1	0	1	2	3
y							

b) Plot, $y = 3x^2$.

c) Does (4, 48) lie on the graph?



Answers

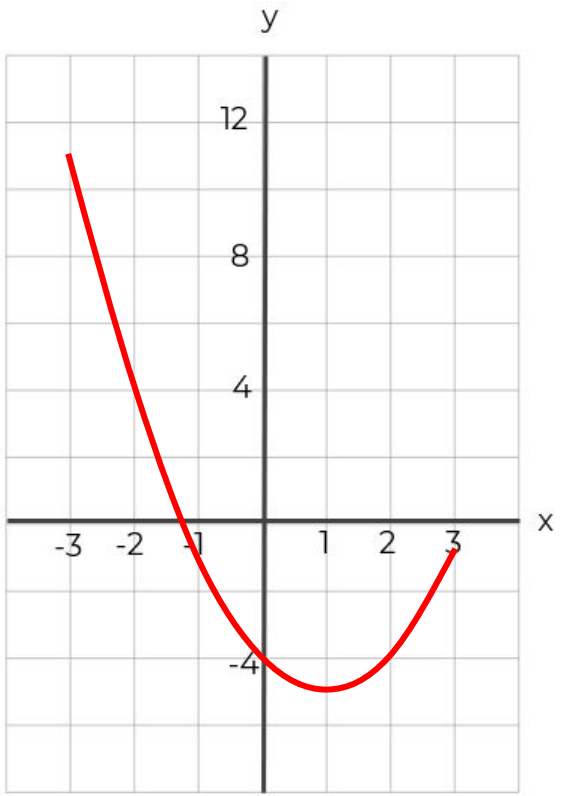
Plot other quadratic equations

1. a) Complete the table of values for the equation $y = x^2 - 2x - 4$

x	-3	-2	-1	0	1	2	3
x^2	9	4	1	0	1	4	9
-2x	+6	+4	+2	0	-2	-4	-6
-4	-4	-4	-4	-4	-4	-4	-4
y	11	4	-1	-4	-5	-4	-1

b) On the grid opposite plot the graph of

$y = x^2 - 2x - 4$

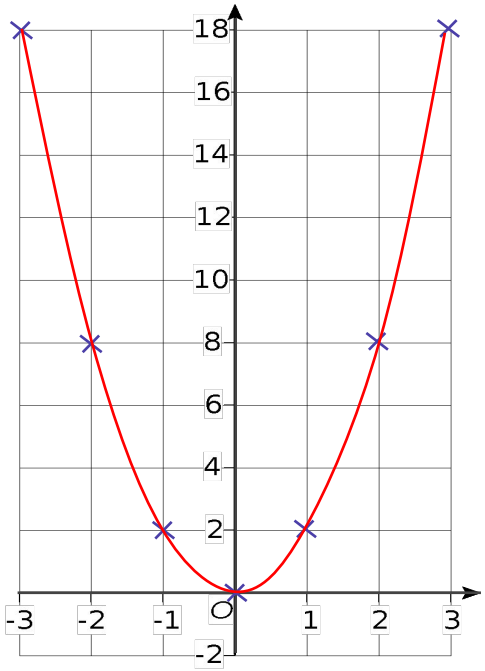


Plot other quadratic equations

2. a) Complete the table of values for $y = 2x^2$

x	-3	-2	-1	0	1	2	3
y	18	8	2	0	2	8	18

b) Plot, $y = 2x^2$



3. a) Complete the table of values for $y = 3x^2$

x	-3	-2	-1	0	1	2	3
y	27	12	3	0	3	12	27

b) Plot $y = 3x^2$

c) Would the point (4, 48) be on the graph?

Yes as $4 \times 4^2 = 48$