



Starter

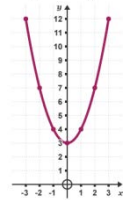
(a) What is the value of $3x^2$ when $x = 2$?

(b) What is the value of $x^2 + 8$ when $x = 5$?

Top Tips!

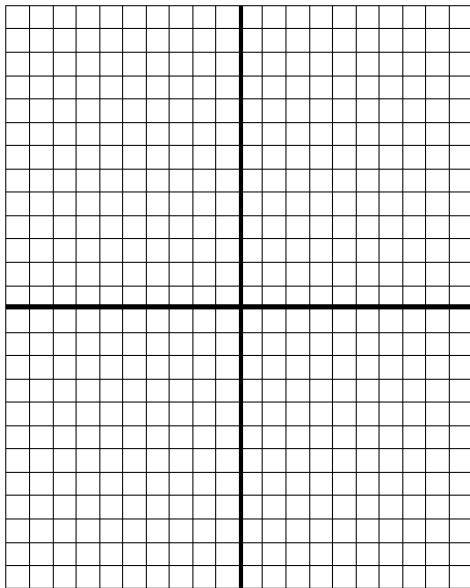
A quadratic graph is any graph which has an x^2 in its equation, $y = x^2 + 5$

All quadratic graphs will be **curved**.



Skills:

Draw the graph of $y = 2x^2 - 1$.



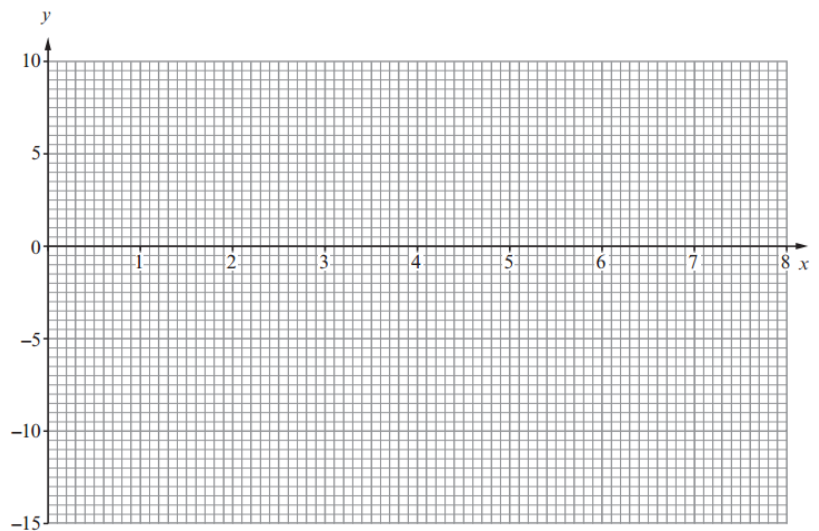
Examination Question: 2012 November Linear P1 Higher Q12a-c

The table shows values of $y = -x^2 + 8x - 12$ for values of x from 1 to 8.

x	1	2	3	4	5	6	7	8
$y = -x^2 + 8x - 12$	-5	0	3	4	3	0		

(a) Complete the table above. [2]

(b) On the graph paper below, draw the graph of $y = -x^2 + 8x - 12$ for the values of x from 1 to 8. [2]



(c) Use your graph to write down the solutions of the equation $-x^2 + 8x - 12 = 0$. [1]



Starter

(a) What is the value of $3x^2$ when $x = 2$?

$3 \times 2^2 = 3 \times 4 = 12$

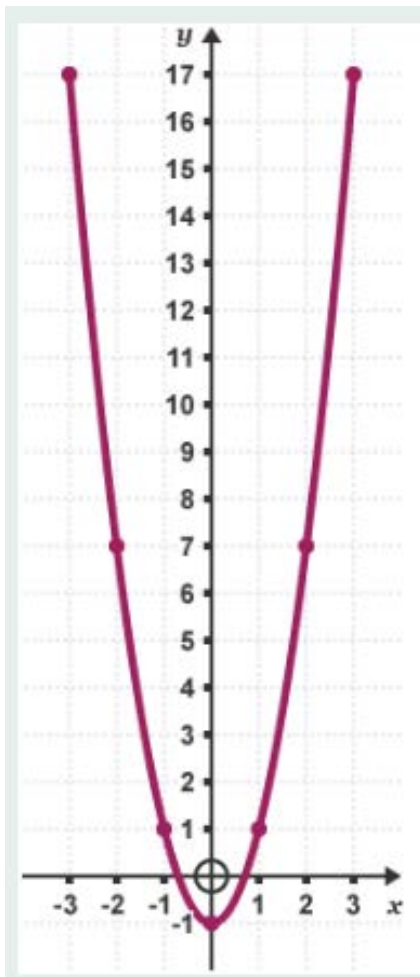
(b) What is the value of $x^2 + 8$ when $x = 5$?

$5^2 + 8 = 25 + 8 = 33$

Skills:

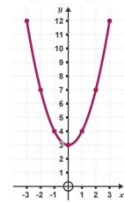
Draw the graph of $y = 2x^2 - 1$.

x	-3	-2	-1	0	1	2	3
$y = 2x^2 - 1$	17	7	1	-1	1	7	17



Top Tips!

A quadratic graph is any graph which has an x^2 in its equation, $y = x^2 + 5$



All quadratic graphs will be **curved**.

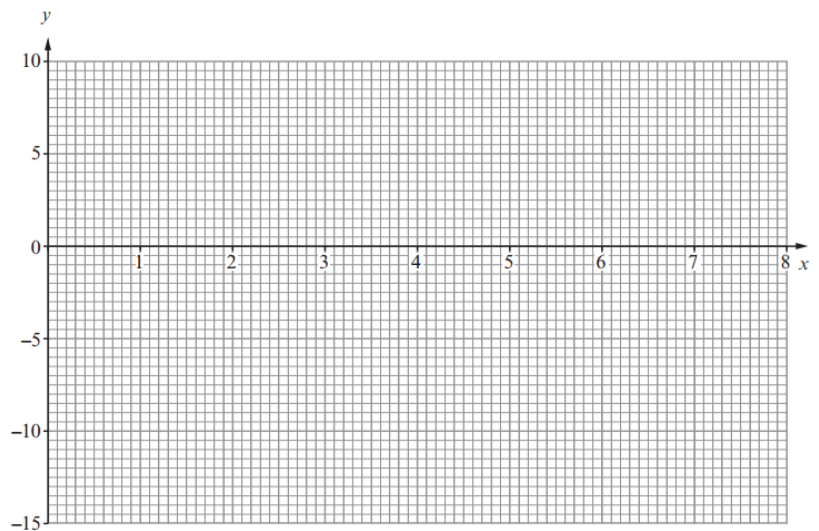
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(a) Complete the table above. [2] **-5 and -12**

(b) On the graph paper below, draw the graph of $y = -x^2 + 8x - 12$ for the values of x from 1 to 8. [2]



(c) Use your graph to write down the solutions of the equation $-x^2 + 8x - 12 = 0$. [1] **2 and 6**