

# Student Activity 5(iii)

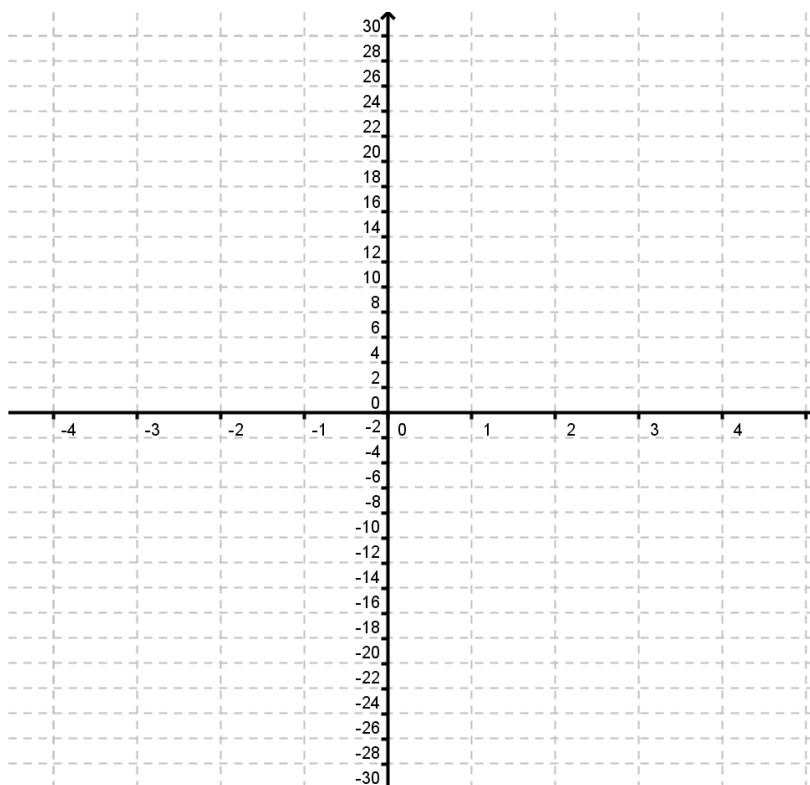
Plot the following graphs using the same axes and scales where  $x \in \{-3, -2, -1, 0, 1, 2, 3\}$

(Use the "Table" mode on the calculator and verify the y values you calculate - optional)

How does the graph of  $y = x^3$  compare with the graph of  $y = x^2$ ?

(i) $y = x^3$	(iii) $y = (x - 2)^3$
(ii) $y = (x + 2)^3$	Investigate the graph of a similar cubic function

$x$	$y = x^3$	$y = (x + 2)^3$	$y = (x - 2)^3$	
-3				
-2				
-1				
0				
1				
2				
3				



(iv) What is the effect of  $h$   
 on the graph of  $y = (x + h)^3$ ?