



### QT Iteration 3

(a) Complete the table of values for  $y = x^3 - 5x - 8$

x	-3	-2	-1	0	1	2	3
y	-20			-8	-12		4

(b) On the grid, draw the graph of  $y = x^3 - 5x - 8$

(c) Show that when  $f(x) = 0$ , the equation  $f(x) = x^3 - 5x - 8$  can be rearranged to give  $x = \sqrt[3]{5x + 8}$

(d) Use the iterative formula  $x_{n+1} = \sqrt[3]{5x_n + 8}$  to find the real root of  $f(x)$  correct to 3 decimal places.

