1 (a) Complete the table of values for $y = 6x - x^3$

$x=-2$:
$y = 6(-2) - (-2)^3$
$= -12 + 8$
$= -4$

$x=-1$:
$y = 6(-1) - (-1)^3$
$= -6 + 1$
$= -5$

$x=0$:
$y = 6(0) - 0^3$
$y = 0$

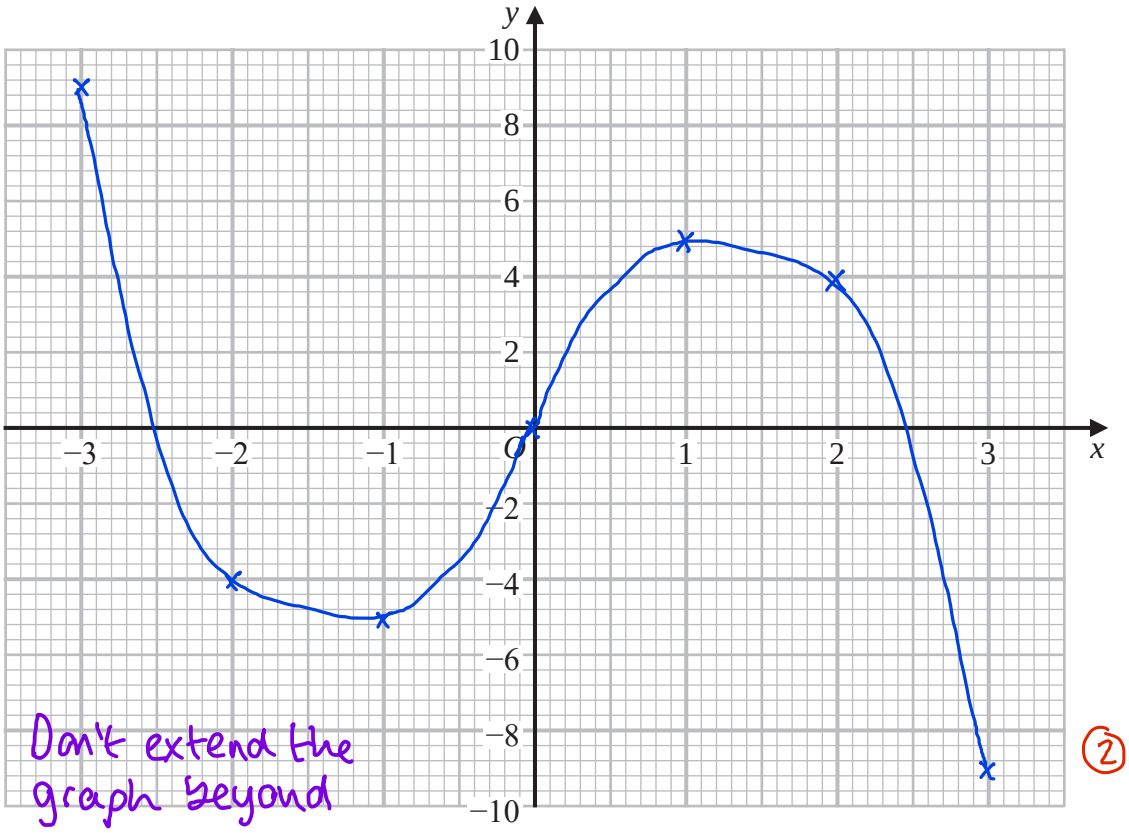
$x=1$:
$y = 6(1) - (1)^3$
$= 6 - 1$
$= 5$

x	−3	−2	−1	0	1	2	3
y	9	−4	−5	0	5	4	−9

(2)

(2)

(b) On the grid, draw the graph of $y = 6x - x^3$ for values of x from −3 to 3



Don't extend the graph beyond the range given.

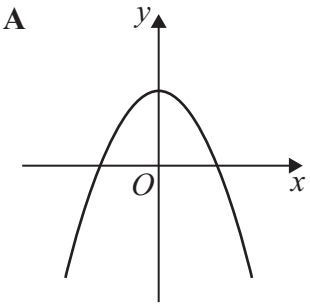
(2)

(2)

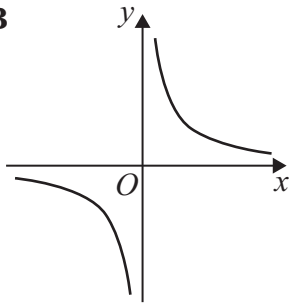
(Total for Question 1 is 4 marks)

2 Here are some graphs.

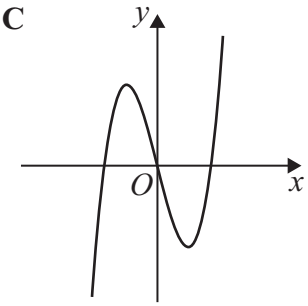
A



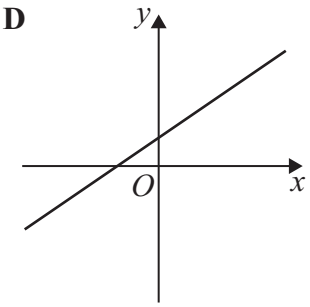
B



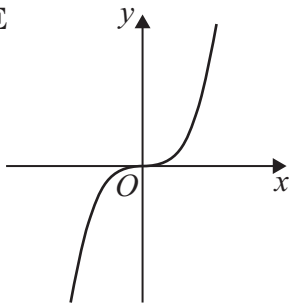
C



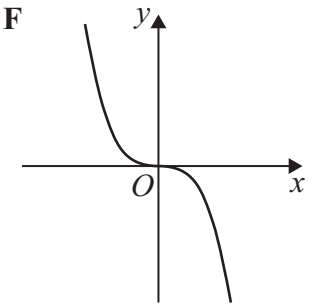
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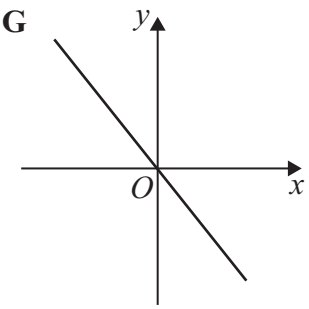
E



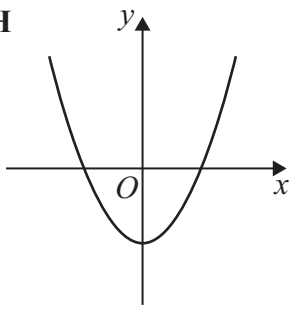
F



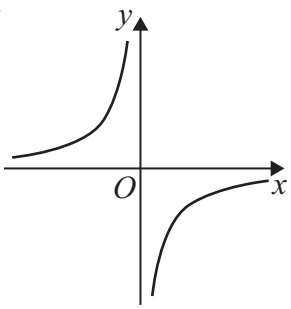
G



H



J



Write down the letter of the graph that could have the equation

(i) $y = x^2 - 4$

Graph of quadratic with y-intercept at -4

H (1)

(1)

(ii) $y = x^3$

Graph of cubic. when x(+), y(-)
when y(+), x(-)

F (1)

(1)

(iii) $y = \frac{5}{x}$

Graph of reciprocal. when x(+), y(-)
when y(+), x(-)

J (1)

(1)

(Total for Question 2 is 3 marks)