

01

$$b) \frac{-1}{3}(-1)^3 + \frac{5}{3}(-1)^2 - (-1) - 3$$

$$= 0$$

* leave 1 line in between
each part

$$c) (0, -3)$$

*

$$d) f'(x) = -x^2 + \frac{10}{3}x - 1$$

*

$$e) f'(-1) = -(-1)^2 + \frac{10}{3}(-1) - 1$$

$$= -\frac{16}{3}$$

*

f) $f'(-1)$ gives the gradient of the tangent to
the curve at the point with $x = -1$.

*

$$g) y = -\frac{16}{3}x + c$$

$$0 = -\frac{16}{3}(-1) + c$$

$$c = -\frac{16}{3}$$

$$y = -\frac{16}{3}x - \frac{16}{3}$$

*

$$i) (i) a = \frac{1}{3}$$

*

$$(ii) b = 3$$

*

(j) $f(x)$ is decreasing



Since the end of
#1 is this close
to the next section,
skip to the next to
start #2

01

0 2

a) -1.10, 0.218, 3.13

b) $f'(x) = 12x^2 - 18x - 12$

* skip 1 line in between each part

*

c) $f'(x) = 0$

$x = -0.5, 2$

$x = -0.5$

$y = 4(-0.5)^3 - 9(-0.5)^2 - 12(-0.5) + 3$
 $y = 6.25$

0 0

d) (0,3)

*

← if this is where the problem ends, there's enough space in between each problem, so start in the next section.



0 3

0 0