



Practice Questions

Grade 12

you must do this question in one of two ways:

- 1) if you do not know what to do, discuss it with me on the group*
- 2) if you have indeed completed it, or tried to do it, post a photo on the group.*

a) Determine

$$\lim_{y \rightarrow 3} \frac{y^2 - 2y - 3}{3 - y} = -4$$

b) Determine $f'(x)$ from first principles if $f(x) = x^2 - x$
 $= 2x - 1$

c) Determine $g'(x)$ if $g(x) = \frac{1}{\sqrt{x}} + \sqrt{x}$
 $= -\frac{1}{2\sqrt{x^3}} + \frac{1}{2\sqrt{x}}$





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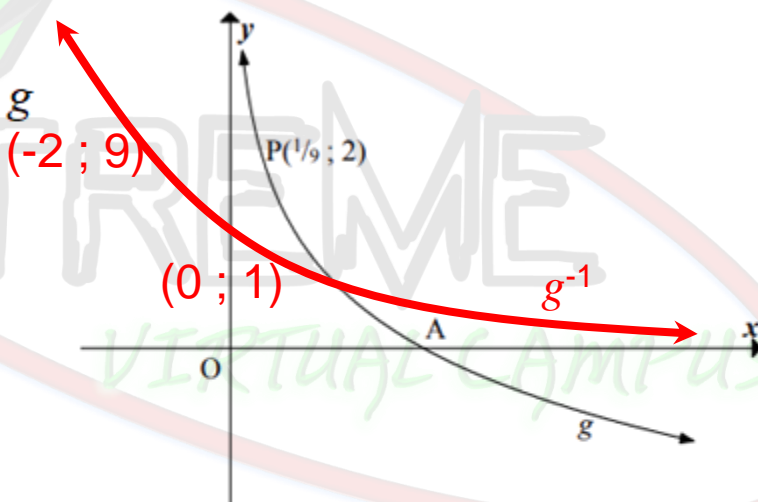
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The graph of $g(x) = \log_{\frac{1}{3}} x$ is given

A is the x -intercept g

$P\left(\frac{1}{9}; 2\right)$ is a point on g



- Write down the coordinates of A. $(1; 0)$
- Sketch the graph of g^{-1} and indicate an intercept with the axes and ONE other point.
- Write down the domain of g^{-1} $x \in \mathbb{R}$

