

## Assginment01

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- 1 Find an equation of the tangent line of the curve  $y = x^2 + 3x + 2$  at  $x = 1$

- 2 Evaluate the following limits:

2.1

$$\lim_{x \rightarrow 3} \frac{x^2 - 27}{x^2 - 9}$$

2.2

$$\lim_{x \rightarrow 2} \left( \frac{x^3 + 8x + 5}{x + 1} \right)^{\frac{1}{2}}$$

**3**    **Let**  $f(x) = \frac{1}{\sqrt{3x+2}}$  **Find :**

$$\lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$$

**4**