

Let $f(x) = x^2 + x$ and $g(x) = 3x - 1$. Evaluate the following limits

1. $\lim_{x \rightarrow 2} \frac{f(x) - f(2)}{x - 2}$

4. $\lim_{h \rightarrow 0} \frac{g(2 + h) - g(2)}{h}$

2. $\lim_{h \rightarrow 0} \frac{f(2 + h) - f(2)}{h}$

5. $\lim_{h \rightarrow 0} \frac{g(3 + h) - g(3)}{h}$

3. $\lim_{x \rightarrow 2} \frac{f(x)}{g(x)}$

6. $\lim_{x \rightarrow 2} f(g(x))$