

Suppose that  $f(x)$  and  $g(x)$  are differentiable functions, and the following information is known about them:

$$f(2) = -3 \quad f'(2) = 5 \quad g(2) = 1 \quad g'(2) = 2 \quad g(0) = 2 \quad g'(0) = 4$$

1. If  $F(x) = \frac{f(x)}{g(x)}$ , compute  $F(2)$  and  $F'(2)$ .
2. If  $G(x) = x^3 f(x) - 7g(x)$ , compute  $G(2)$  and  $G'(2)$ .
3. If  $H(x) = \frac{3 + e^x}{g(x)}$ , compute  $H(0)$  and  $H'(0)$ .