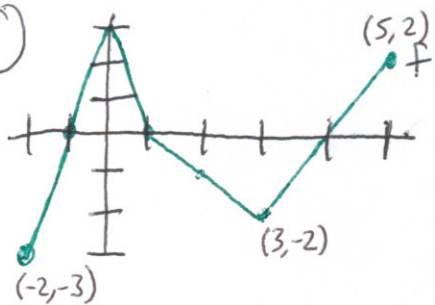


Ch4 Quiz

① $g(x) = \int_1^x f(t) dt$



a) $g(1) =$ b) $g(-2) =$ c) $g(5) =$

d) What intervals $g(x)$ decreasing?

a) 0 b) $-\left[\frac{2 \cdot 3}{2} + \frac{1 \cdot 3}{2}\right] = -[3 + 1.5] = -4.5$

c) $-\left(\frac{3 \cdot 2}{2}\right) + \left(\frac{1 \cdot 2}{2}\right) = -3 + 1 = -2$

d) $g'(x) = f(x)$
 $f(x) < 0$ $[-2, 1] \cup [3, 4]$

② $\int \frac{5 - \sqrt[3]{x}}{x^2} dx$

$\int \frac{5}{x^2} - \frac{x^{1/3}}{x^2} dx = \int 5x^{-2} - x^{-5/3} dx$

$\frac{5x^{-1}}{-1} - \frac{x^{-2/3}}{-2/3} + c = -\frac{5}{x} + \frac{3}{2\sqrt[3]{x^2}} + c$

③ $\int \frac{\sin x}{2} - \csc^2 x dx$

$\frac{-\cos x}{2} + \cot x + c$