

Name: _____

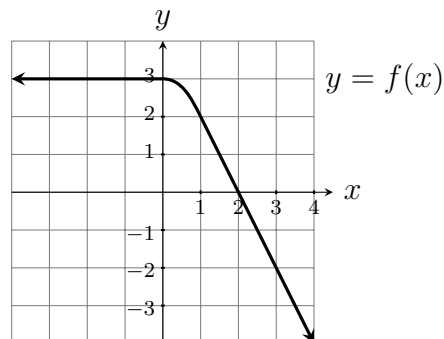
1. Suppose that, for the function graphed below, $\int_{-4}^2 f(x) dx = 15.7$. Answer the questions below.

(a) $\int_{-3}^{-1} 5f(x) dx =$

(b) $\int_1^2 f(x) dx =$

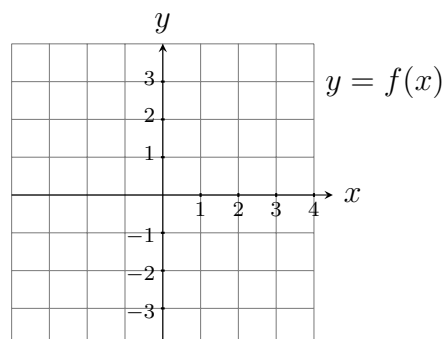
(c) $\int_1^4 f(x) dx =$

(d) $\int_0^2 f(x) dx =$



(e) $\lim_{n \rightarrow \infty} \sum_{k=1}^n f\left(1 + \frac{k}{n}\right) \frac{1}{n} =$

2. Find $\int_{-2}^2 \left(1 + \sqrt{4 - x^2}\right) dx$ by considering area. You may find it helpful to sketch the graph.



Name: _____

QUIZ 23



MATH 200
November 18, 2025

1. Suppose that, for the function graphed below, $\int_{-2}^0 f(x) dx = 3.7$. Answer the questions below.

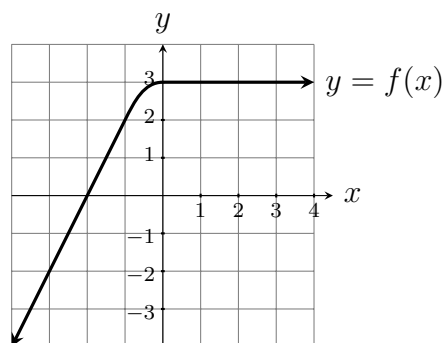
(a) $\int_{-2}^2 f(x) dx =$

(b) $\int_2^4 \frac{f(x)}{2} dx =$

(c) $\int_3^1 f(x) dx =$

(d) $\int_{-3}^{-1} f(x) dx =$

(e) $\lim_{n \rightarrow \infty} \sum_{k=1}^n f\left(1 + \frac{3k}{n}\right) \frac{3}{n} =$



2. Find $\int_0^2 \left(2 + \sqrt{4 - x^2}\right) dx$ by considering area. You may find it helpful to sketch the graph.

