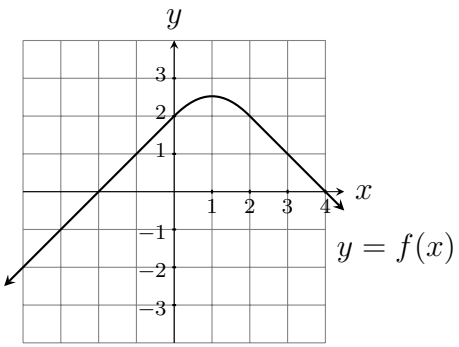
Name: _____

Quiz 23

MATH 200
November 28, 2023

1. Answer the questions about the function $f(x)$ graphed below.



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

(b) $\displaystyle\int_{4}^{2} f(x)\,dx =$

(c) $\displaystyle\int_{-2}^{0} f(x)\,dx =$

(d) Suppose $\displaystyle\int_{0}^{2} f(x)\,dx = 4.7$. Find $\displaystyle\int_{-2}^{4} f(x)\,dx$.

(e) $\displaystyle\lim_{n\to\infty}\sum_{k=1}^{n} f\left(-3+\frac{2k}{n}\right)\frac{2}{n} =$

2. Suppose for functions f and g we have: $\displaystyle\int_{1}^{4} f(x)\,dx = 1$, $\displaystyle\int_{4}^{6} f(x)\,dx = 2$, $\displaystyle\int_{1}^{6} g(x)\,dx = 3$.

Find $\displaystyle\int_{1}^{6} \big(2f(x)+g(x)\big)\,dx$

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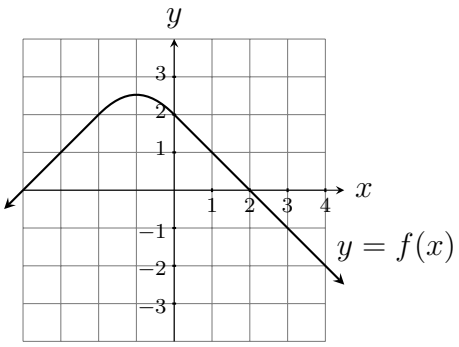
1. Answer the questions about the function $f(x)$ graphed below.



(a) $\displaystyle\int_1^3 f(x)\,dx =$

(b) $\displaystyle\int_4^2 f(x)\,dx =$

(c) $\displaystyle\int_0^1 f(x)\,dx =$

(d) Suppose $\displaystyle\int_{-2}^0 f(x)\,dx = 4.7$. Find $\displaystyle\int_{-2}^2 f(x)\,dx$.

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

2. Suppose for functions f and g we have: $\displaystyle\int_1^4 f(x)\,dx = 3$, $\displaystyle\int_4^6 f(x)\,dx = 2$, $\displaystyle\int_1^6 g(x)\,dx = 1$.

Find $\displaystyle\int_1^6 \big(5f(x) + g(x)\big)\,dx$