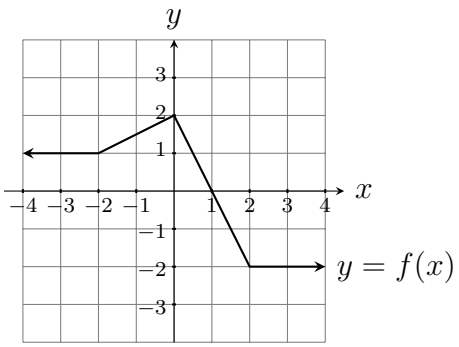
Name: _____

Quiz 23 ♡

MATH 200
December 6, 2021

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



(a) $\displaystyle\int_{-3}^{0} f(x)\,dx =$

(b) $\displaystyle\int_{0}^{4} f(x)\,dx =$

(c) Suppose $\displaystyle\int_{0}^{7} f(x)\,dx = 10$. Find $\displaystyle\int_{4}^{7} f(x)\,dx$.

2. Find $\displaystyle\int_{-1}^{1} 3\sqrt{1-x^2}\,dx$ by considering area.

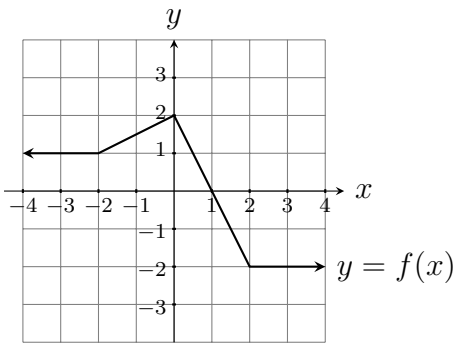
3. Write $\displaystyle\lim_{n\to\infty}\sum_{k=1}^{n}\sqrt{2+\frac{9k}{n}}\,\frac{9}{n}$ as a definite integral.

Name: _____

Quiz 23 ♣

MATH 200
December 6, 2021

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



(a) $\displaystyle\int_{-4}^{0} f(x)\,dx =$

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

(c) Suppose $\displaystyle\int_{0}^{7} f(x)\,dx = 10$. Find $\displaystyle\int_{2}^{7} f(x)\,dx$.

2. Find $\displaystyle\int_{0}^{1} 3\sqrt{1-x^2}\,dx$ by considering area.

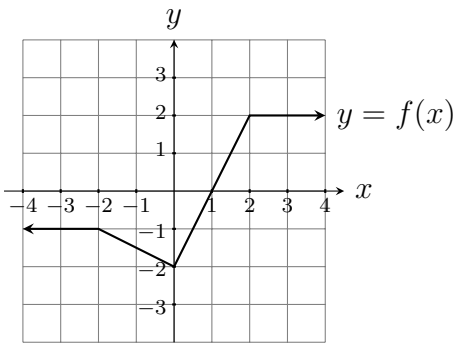
3. Write $\displaystyle\lim_{n\to\infty}\sum_{k=1}^{n}\sqrt{2+\frac{8k}{n}}\,\frac{8}{n}$ as a definite integral.

Name: _____

Quiz 23 ♢

MATH 200
December 6, 2021

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



(a) $\displaystyle\int_{-3}^{0} f(x)\,dx =$

(b) $\displaystyle\int_{0}^{3} f(x)\,dx =$

(c) Suppose $\displaystyle\int_{0}^{7} f(x)\,dx = 3$. Find $\displaystyle\int_{3}^{7} f(x)\,dx$.

2. Find $\displaystyle\int_{-1}^{1} 5\sqrt{1-x^2}\,dx$ by considering area.

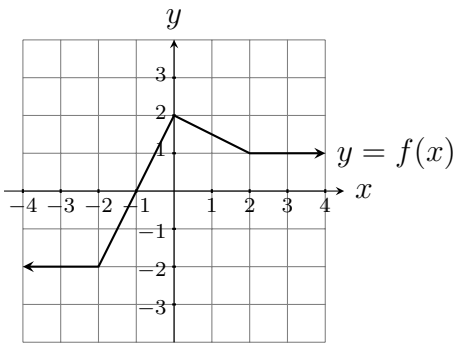
3. Write $\displaystyle\lim_{n\to\infty}\sum_{k=1}^{n} \ln\left(1+\frac{4k}{n}\right)\frac{4}{n}$ as a definite integral.

Name: _____

Quiz 23 ♠

MATH 200
December 6, 2021

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



(a) $\displaystyle\int_{-3}^{0} f(x)\,dx =$

(b) $\displaystyle\int_{0}^{4} f(x)\,dx =$

(c) Suppose $\displaystyle\int_{0}^{7} f(x)\,dx = 10$. Find $\displaystyle\int_{4}^{7} f(x)\,dx$.

2. Find $\displaystyle\int_{0}^{1} 5\sqrt{1-x^2}\,dx$ by considering area.

3. Write $\displaystyle\lim_{n\to\infty}\sum_{k=1}^{n} \frac{1}{2+\dfrac{5k}{n}}\cdot\frac{5}{n}$ as a definite integral.