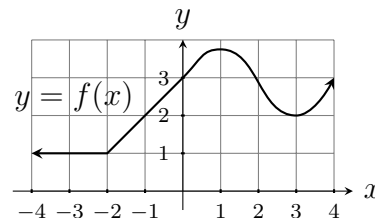


Name: _____

1. A function $f(x)$ is graphed below. If $\int_{-4}^4 f(x) dx = 17.8$, what is $\int_0^4 f(x) dx$?



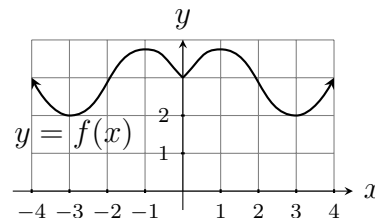
2. Suppose f is a function for which $\int_2^5 f(x) dx = 4$ and $\int_2^8 f(x) dx = 9$. Find $\int_8^5 7f(x) dx$.

3. Write the limit $\lim_{n \rightarrow \infty} \sum_{k=1}^n \sin\left(\sqrt{\frac{\pi k}{n}}\right) \frac{\pi}{n}$ as a definite integral.

4. Write $\int_2^5 \ln(x) dx$ as a limit of Riemann sums (such as in problem 3 above).

Name: _____

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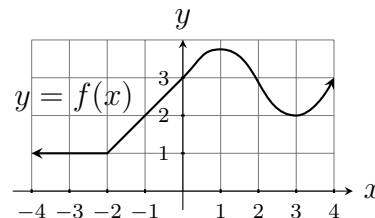


2. Suppose f and g are functions for which $\int_0^5 f(x) dx = 3$, $\int_0^2 3g(x) dx = 12$, and $\int_2^5 g(x) dx = -1$. Find $\int_0^5 3f(x) - g(x) dx$.

3. $\lim_{n \rightarrow \infty} \sum_{k=1}^n \frac{1}{1 + (2 + 7k/n)^2} \frac{7}{n}$ as a definite integral.

4. Write $\int_3^4 \sin(x) dx$ as a limit of Riemann sums (such as in problem 3 above).

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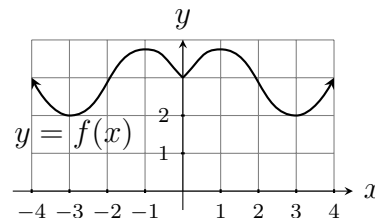
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1. A function $f(x)$ is graphed below. If $\int_{-4}^4 f(x) dx = 22.6$, what is $\int_0^4 f(x) dx$?



2. Suppose f and g are functions for which $\int_0^5 f(x) dx = 3$, $\int_0^2 3g(x) dx = 12$, and $\int_2^5 g(x) dx = -1$. Find $\int_0^5 3f(x) - g(x) dx$.

3. $\lim_{n \rightarrow \infty} \sum_{k=1}^n \frac{1}{1 + (7k/n)^2} \frac{7}{n}$ as a definite integral.

4. Write $\int_3^4 \sqrt{x} dx$ as a limit of Riemann sums (such as in problem 3 above).