1. $\sum_{k=1}^{5}(3+2 k)=$
2. Suppose that $f(x)$ is a function for which $\int_{1}^{5} f(x) d x=3$ and $\int_{1}^{7} f(x) d x=-6$. Find $\int_{5}^{7} f(x) d x$.
3. Write the integral that finds area under the curve $y=\sin ^{2}(x)$ from $x=0$ to $x=\pi$.

Do not compute the integral.

Name: $\qquad$
Instructions: Show work and put a box around your final answer.

1. $\sum_{k=1}^{4}(8-2 k)=$
2. Suppose that $f(x)$ is a function for which $\int_{2}^{5} f(x) d x=4$ and $\int_{2}^{8} f(x) d x=9$. Find $\int_{5}^{8} f(x) d x$.
3. Write the definite integral that finds area under the curve $y=e^{x}+2 x$ from $x=1$ to $x=4$. Do not compute the integral.
4. $\sum_{k=1}^{4}(2 k-4)=$
5. Suppose that $f(x)$ is a function for which $\int_{2}^{5} f(x) d x=7$ and $\int_{2}^{8} f(x) d x=8$. Find $\int_{5}^{8} f(x) d x$.
6. Write the definite integral that finds area under the curve $y=\sqrt{\sin (x)}$ from $x=0$ to $x=\pi$. Do not compute the integral.

Name: $\qquad$

1. $\sum_{\mathrm{k}=1}^{4}\left(\mathrm{k}^{2}+2\right)=$
2. Suppose that $f(x)$ is a function for which $\int_{0}^{5} f(x) d x=-7$ and $\int_{0}^{6} f(x) d x=9$. Find $\int_{5}^{6} f(x) d x$.
3. Write the definite integral that finds area under the curve $y=2 e^{\cos x}$ from $x=1$ to $x=4$. Do not compute the integral.
