

Name: _____

1. Suppose $f(0) = 3$, $f(10) = 4$, $f(20) = 6$, $f(30) = 9$, $f(40) = 13$, and $f(50) = 18$. Use the left hand rule to estimate $\int_{10}^{40} f(x)dx$.

2. Using the left-hand rule, estimate the area between the graph of $y = f(x)$, the x -axis, the line $y = 0$ and the line $y = 3$ if $f(0) = 40$, $f(1) = 20$, $f(2) = 10$, and $f(3) = 5$.