| $t$ | 0 | 2 | 5 | 6 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $W(t)$ | 12 | 17 | 21 | 16 | 13 |

Approximate $\int_{0}^{10} W(t)$ by:
a) Using a left Riemann sum of 4 subdivisions.
b) Using a right Riemann sum of 4 subdivisions.
c) Finding a Trapezoidal sum of 4 subdivisions.
d) Find $W^{\prime}(8)$.

a) When does $f$ have a rel. max.?
b) When is $f$ concave down?
c) If $f(0)=22.5$, find each of the following:
d) Evaluate each:

$$
\begin{array}{ll}
f(2)= & f^{\prime}(2)= \\
f(6)= & f^{\prime \prime}(3)= \\
f(10)= & f^{\prime \prime}(9)=
\end{array}
$$



A student rides his bike to school and forgets his homework. After locating his homework, he went to school. The graph above shows a students velocity in yards per minute.
a) What is his acceleration at $t=11$ ?
c) When does he return home?
$e)$ How far does he live from school?
f) How far did he ride his bike on this day?
g) How far does he travel before turning around?

