2. (4 points) As an avid online music trader, your rate of transfer of mp3's is given by $m(t)$ measured in songs/hour where $t=0$ corresponds to 5 pm . Explain the meaning of the quantity $\int_{0}^{5} m(t) d t$.
$\int_{0}^{5} m(t) d t$ represents the number of songs transferred between 5 pm and 11 pm .
3. (8 points) Suppose $\int_{-3}^{4} f(x) d x=10, \int_{0}^{4} f(x) d x=2$, and that $f$ is an $\boldsymbol{o d d}$ function. For each of the following integrals fill in the answer in the space provided.
(a) $\int_{-3}^{4} 6 f(x) d x=6 \int_{-3}^{4} f(x) d x=60$
(b) $\int_{-3}^{0} f(x) d x=\int_{-3}^{4} f(x) d x-\int_{0}^{4} f(x) d x=8$.
(c) $\int_{-4}^{0} f(x) d x=-\int_{0}^{4} f(x) d x=-2 \quad$ where we use that $f(x)$ is an odd function.
(d) $\int_{-4}^{-3} f(x) d x=\int_{-4}^{0} f(x) d x-\int_{-3}^{0} f(x) d x=-10$
