
Group Work 23

1. Compute three of the following—or all of them, for extra credit ☺

(a) $\int (x+2)(x^{-1}+x)dx$

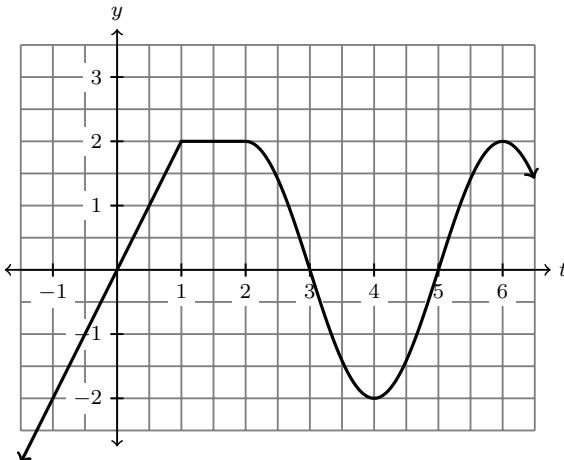
(b) $\int \frac{\sqrt{x} + 2x^2}{x} dx$

(c) $\int xe^{x^2} dx$

(d) $\int e^{x^2} dx$

2. The graph of $f(t)$ is below. Define a new function by

$$A(x) = \int_{-1}^x f(t)dt$$



(a) Find $A(0)$.

$$\begin{aligned} A(0) &= \int_{-1}^0 f(t)dt \\ &= \text{area "under } f\text{" from } -1 \text{ to } 0 \\ &= \end{aligned}$$

(e) Find $A(3)$. (An estimate is fine.)

(b) Find $A(1)$.

(f) Find $A(4)$.

(c) Find $A(1.5)$.

(g) Find $A(6)$.

(d) Find $A(2)$.

(h) Find $A(-1)$.

(i) Describe in words (using areas) the meaning of $A(x)$.