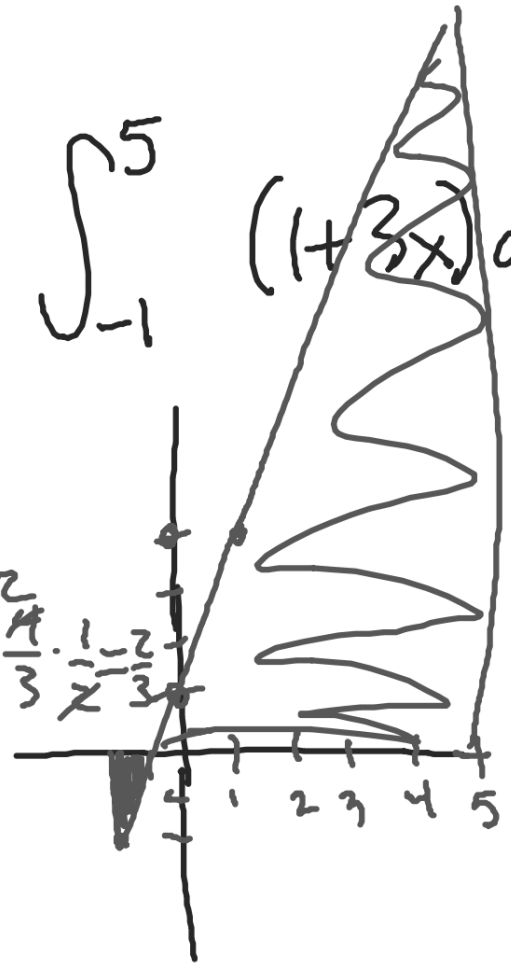
19, 21, 47,

(19) $\lim_{n\to\infty} \sum_{i=1}^{n} \underbrace{\sqrt{2x_i + x_i^2}}_{h} \underbrace{\Delta x}_{w} \quad [1, 8]$

$$\int_1^8 \sqrt{2x + x^2}\, dx$$

(21) $\int_{-1}^{5} (1+3x)\,dx$




$A = 2 \cdot \frac{2}{3} = \frac{2}{3}$

$A = -\frac{2}{3}$

$A = \frac{1}{2} \cdot 5\frac{1}{3} \cdot 16$

$= \frac{1}{2} \cdot \frac{16}{3} \cdot 16$

$= \frac{128}{3}$

$\frac{128}{3} + -\frac{2}{3} = \boxed{\frac{126}{3}}$

$1+3x=0$

$x=-1/3$

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$$\int_{-2}^{2} f(x)\,dx + \int_{2}^{5} f(x)\,dx - \int_{-2}^{-1} f(x)\,dx$$

$$\int_{-2}^{5}$$