MA 137 Worksheet #26

 $\begin{array}{c} \text{Section } 6.1 \\ 11/19/20 \end{array}$

1. Compute

$$\sum_{k=11}^{20} (3k+2)$$

2. Recognize the sum as a Riemann sum and express the limit as an integral.

$$\lim_{n \to \infty} \sum_{i=1}^n \frac{i^3}{n^4}$$

3. Evaluate the following integrals by interpreting them in terms of areas:

(a)
$$\int_{-2}^{3} |2x-1| dx$$

(b)
$$\int_0^4 \sqrt{16 - x^2} dx$$