$\mathcal{S}ols$

MATH 122: QUIZ 8 RIEMANN SUMS

Name: _____

1. (10 points) Approximate the area under the following curve over the interval $[-5, 3]$ using 4 **right** endpoint rectangles.

$$y = \frac{x^2}{2} + x + 2$$

$$\Delta x = \frac{b-a}{n} = \frac{3 - {}^-5}{4} = \frac{8}{4} = 2$$

$$\Delta x \left(f(-3) + f(-1) + f(1) + f(3) \right)$$

$$= 2 \left(3.5 + 1.5 + 3.5 + 9.5 \right)$$

$$= \boxed{36}$$