INTEGRATION

BLAKE FARMAN

Lafayette College

Name: _____

Use right endpoints and the formulas

$$\sum_{i=1}^{n} i = \frac{n(n+1)}{2} \qquad \sum_{i=1}^{n} i^2 = \frac{n(n+1)(2n+1)}{6} \qquad \sum_{i=1}^{n} i^3 = \left(\frac{n(n+1)}{2}\right)^2$$

to evaluate the following integrals.

1.

$$\int_0^3 x^3 \, \mathrm{d}x.$$

2.

$$\int_1^2 x^2 \, \mathrm{d}x$$