## **Lesson 1.4 – Integrals of Constant Functions**

- 1. Find the family of antiderivatives of each constant function.
  - (a) y = m
  - (b) y = -9
  - (c) y = 0.23
- 2. Use the Fundamental Theorem of Calculus to evaluate each definite integral.
  - (a)  $\int_a^b m \, dx$
  - (b)  $\int_{2}^{5} -6 \, dx$
  - (c)  $\int_{-\frac{1}{2}}^{1} 4.2 \, dx$
- 3. Stan saves money by stashing \$50 per week under his mattress.
  - (a) Write a definite integral that represents Stan's total accumulation of savings between the second and tenth weeks.
  - (b) Use the Fundamental Theorem of Calculus to evaluate the integral from part (a), and interpret your answer in context.