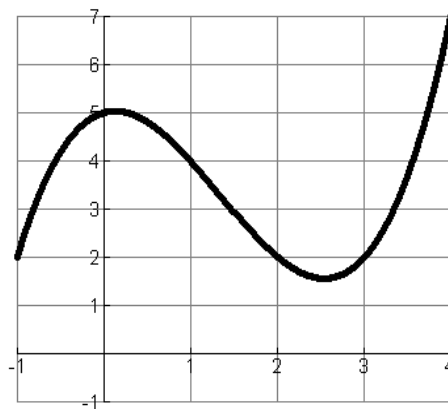
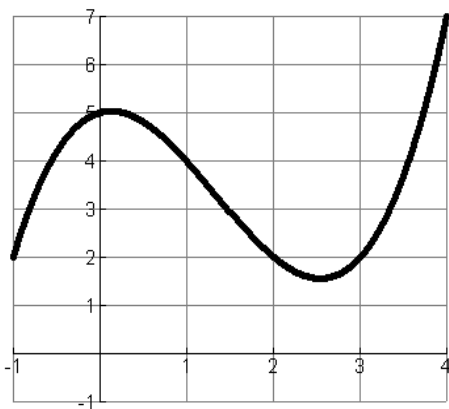
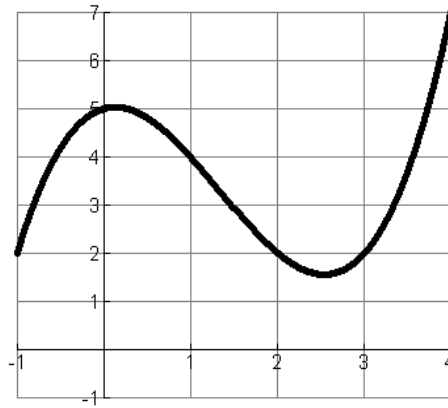
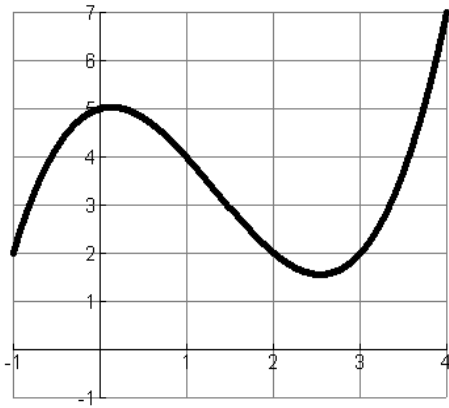
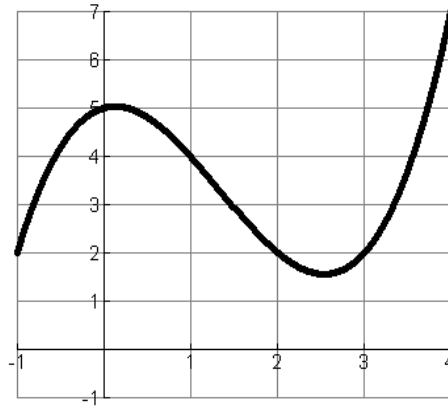
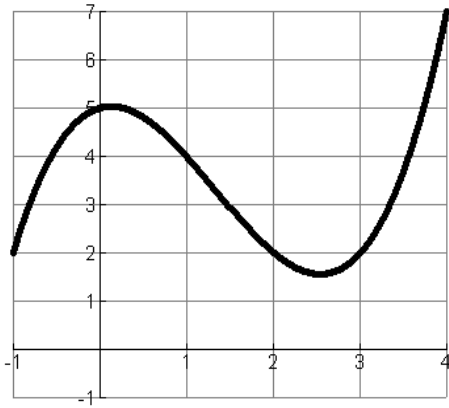


5.1 Graphs for Keeper



5.2 Pics

BASIC INTEGRATION FORMULAS

- $\int k dx = kx + C$
- $\int x^r dx = \frac{x^{r+1}}{r+1} + C$, provided $r \neq -1$
- $\int x^{-1} dx = \int \frac{1}{x} dx = \ln|x| + C$
- $\int be^{ax} dx = \frac{b}{a} e^{ax} + C$

MORE ANTIDERIVATIVE RULES

$$\int kf(x)dx = k\int f(x)dx$$

$$\int [f(x) \pm g(x)]dx = \int f(x)dx \pm \int g(x)dx$$

TRIG INTEGRALS

$$\int \cos x dx = \sin x + C$$

$$\int \sin x dx = -\cos x + C$$

$$\int \sec^2 x dx = \tan x + C$$

$$\int \csc^2 x dx = -\cot x + C$$

$$\int \sec x \tan x dx = \sec x + C$$

$$\int \csc x \cot x dx = -\csc x + C$$

OTHER COMMON INTEGRAL

$$\int \frac{1}{x} dx \text{ or } \int x^{-1} dx = \ln|x| + c$$

$$\int e^x dx = e^x + c$$

$$\int a^x dx = \frac{a^x}{\ln a} + c$$

5.4 Pic

$$\int_a^a f(x) dx = 0$$

$$\int_a^b f(x) dx = -\int_b^a f(x) dx$$

$$\int_a^b f(x) dx = \int_a^c f(x) dx + \int_c^b f(x) dx$$

$$\int_a^b (f(x) \pm g(x)) dx = \int_a^b f(x) dx \pm \int_a^b g(x) dx$$

$$\int_a^b c \cdot f(x) dx = c \int_a^b f(x) dx$$