

Section 6.1: More about Areas

These notes reflect material from our text, *Calculus, Concepts and Contexts, Third Edition*, by James Stewart, published by Brooks/Cole, Pacific Grove, CA, 2005.

Key points from Stewart, Section 6.1: Area of a region bounded by the graphs of two functions.

Concepts

If f and g are continuous functions on the interval $[a, b]$, and $f(x) \geq g(x)$ there, then the area of the region between the graphs of f and g over the interval $[a, b]$ is

$$\int_a^b (f(x) - g(x)) dx.$$

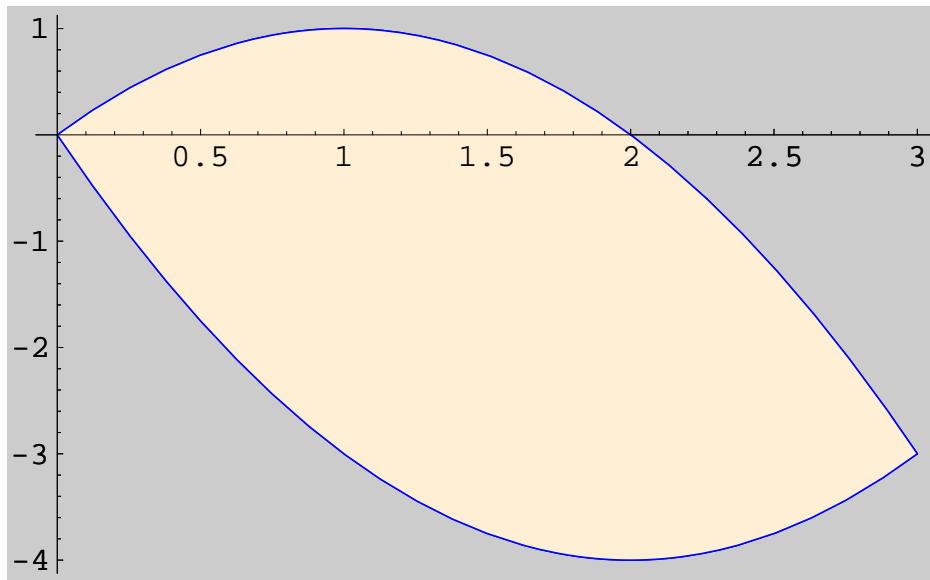


Fig. What is the area of the region between the graphs of f and g ?

Exercises

Exercises for Section 6.1, pp 446–447: 1, 3, 9, 11, 14, 19 (areas), 25 (birth and death rates), 27, 29 (lune), 33