

## Section 4.9: Antiderivatives

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

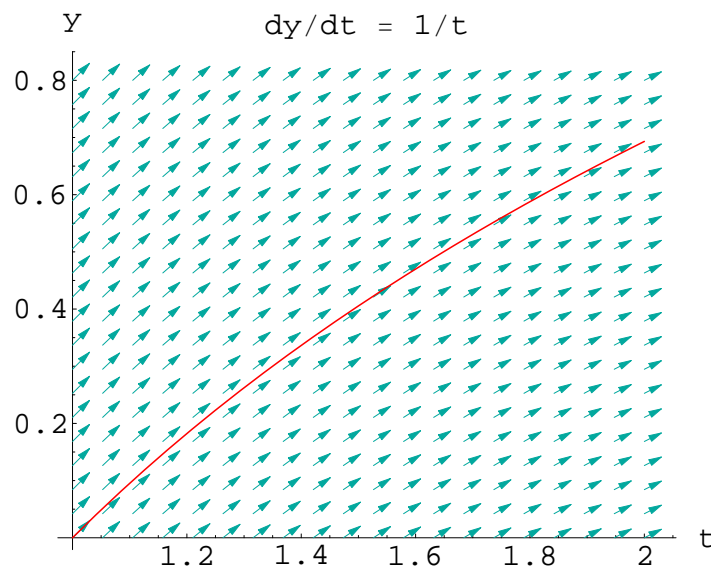
*Key points from Stewart, Section 4.9: Antiderivatives.*

### Concepts

**Antiderivatives**, the most general antiderivative, table of antiderivatives.

Finding antiderivatives graphically, differential equations, direction fields, integral curves.

Rectilinear motion.



*Fig. An integral curve tracks the lines of flow in a direction field.*

### Exercises

*Exercises for Section 4.9, pp 332–334:* 7, 13, 15, 25, 29 (antiderivative), 31 (sketch), 33 (direction field), 40 (particle), 41 (stone), 44 (two balls), 48 (braking), 54 (rain drop)