



8. Let  $y = \frac{2}{x}$ . If  $x$  changes from 1 to 1.05, approximately how much does  $y$  change?

Answer: -0.1

9. The area of an equilateral triangle is decreasing at a rate of 2 square centimeters per second. Find the rate at which the length of a side is changing when the area of the triangle is  $100\sqrt{3}$  square centimeters. (Note: Area of equilateral triangle with side length  $x$  is  $A = \frac{\sqrt{3}}{4}x^2$ .)

Answer:  $\frac{-2}{10\sqrt{3}}$  cm/sec