# **Problems of the Month**

## November 2017

#### **General Problem:**

A grocery store sells bananas for 50 cents per pound. If the cost to produce a banana is 5 cents per pound and the shipping cost is 25 cents per pound, how much profit does the store make by selling 500 pounds of bananas?

#### **Calculus Problem:**

Calculate the integral below.

$$\int \frac{5}{4+2x^2} dx$$

### **Challenge Problem:**

An isosceles triangle has two side lengths measuring 1 foot. A circle is to be inscribed inside of the triangle. Find the area of the largest possible circle.

