Name:

The Amazon in Perspective

You are a biologist returning home from an eye-opening trip to the Amazon rain forest. As you explored the length of the river, you encountered many new organisms, both dangerous and docile. Now it is time to head to your lab and analyze your notes from this adventure. That way, you can put the Amazon in perspective. Here are some of the interesting findings you can report:

Work the Math

Directions: For each computation, express your answer in scientific notation.

1 **About 620,000 cubic yards of water flow from the Amazon River into the Atlantic Ocean every second.**

a. Express this quantity of water in scientific notation.
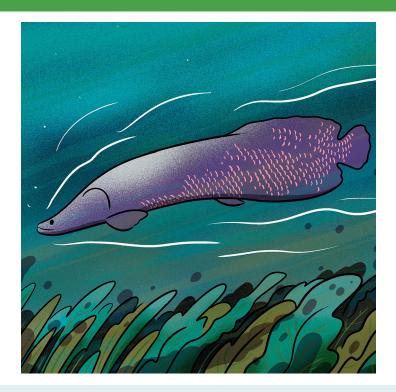
b. About how many cubic yards of water flow from the Amazon River into the Atlantic Ocean in one hour? Express your answer in scientific notation.

2 **The largest fish in the Amazon, the arapaima fish, can grow to measure up to 3.048×10^3 millimeters. The Amazon's candiru, however, only measures 7.62×10^1 millimeters, on average. How many times larger is the arapaima fish than the candiru?**

3 **The Amazon River is about 3,977 miles long. The Roe River in Montana is about 0.0378788 miles long. The Nile River is about 4,160 miles long.**

a. Express each of these river lengths in scientific notation.

b. About how many times longer is the Amazon River than the Roe River?

c. About how many times longer is the Nile River than the Amazon River?

4 **The kapok tree can grow to be 60 meters tall. Hummingbirds, which are about 8.5 centimeters in length, often feed off a kapok tree's flowers.**

a. Convert the kapok tree's height to centimeters. Express this value in scientific notation.

b. Using the centimeter measurements, how many times larger is the kapok tree than a hummingbird?

c. Convert the hummingbird length to meters. Express this value in scientific notation.

d. Using the meter measurements, how many times larger is the kapok tree than a hummingbird?

e. What do you notice about your answers to questions b and d?

Think It Through: Review your answers above. Are there any answers that would make more sense expressed in standard notation? Explain your reasoning on the back of this sheet.