Calculator Exercise

This exercise is designed to illustrate when and when not to use your calculator. Make sure that the calculator you bring to the test is one with which you are thoroughly familiar. You may bring any of the following types of calculators: graphing, four-function, or scientific. Although no item requires the use of a calculator, a calculator may be helpful to answer some items. The calculator may be useful for any item that involves complex arithmetic computations, but it cannot take the place of understanding how to set up a mathematical item. The degree to which you can use your calculator will depend on its features. Answers are on page 454.

DIRECTIONS: Label each of the items that follow according to one of the following categories.

Category 1: A calculator would be very useful (saves valuable test time).
Category 2: A calculator might or might not be useful.
Category 3: A calculator would be counterproductive (wastes valuable test time).

1. What is the average of 8.5, 7.8, and 7.7?

A) 8.3
B) 8.2
C) 8.1
D) 8.0

2. If $0 < x < 1$, which of the following is the largest?

A) $2x$
B) x^2
C) x^3
D) $x + 1$

3. If 4.5 pounds of chocolate cost \$10, how many pounds of chocolate can be purchased for \$12?

A) $4\frac{3}{4}$
B) $5\frac{2}{5}$
C) $5\frac{1}{2}$
D) $5\frac{3}{4}$

4. What is the value of $\frac{8}{9} - \frac{7}{8}$?

A) $\frac{1}{72}$
B) $\frac{1}{8}$
C) $\frac{1}{7}$
D) $\frac{15}{72}$

5. Which of the following fractions is the largest?

A) $\frac{111}{221}$
B) $\frac{75}{151}$
C) $\frac{333}{998}$
D) $\frac{113}{225}$