



## Arithmetic with the Apes

A) Find the answers to these questions on the signage and perform the indicated arithmetic functions. If you use a calculator and turn it upside down, the word you read will be a description of a human primate that is not concerned about his/her appearance. Observationally dependant.

Number of different calls produced by chimps \_\_\_\_\_ X 250 = \_\_\_\_\_

Number of hours a chimp spends eating fruit each day \_\_\_\_\_ X (39-14) = \_\_\_\_\_

How many chimps were born in 1992 \_\_\_\_\_ X 25 = \_\_\_\_\_

Length of arm spread in adult orangutan \_\_\_\_\_ X 50 = \_\_\_\_\_

Sum of these = \_\_\_\_\_

B) Find the graph (inside building) that compares the life cycles of humans and the apes. Answer the following questions: Read for these

Which primate has the shortest juvenile stage in years?

Which primate female has the longest post-reproductive period?

Which primate has the shortest average lifespan?

C) In the outdoor orangutan yard, there are a number of climbing structures. Many of them have triangular platforms constructed of wood or fire hose. Assuming these platforms are all the same size equilateral triangles with a side that measures 9 feet, what is the total surface area of all the platforms?

$$A = \frac{1}{2} B \times H$$

$$A = \frac{1}{2} 9 \times 9$$

$$A = 40.5$$

$$\text{Total } A = 3 \times 40.5$$

$$\text{Total } A = 121.5$$



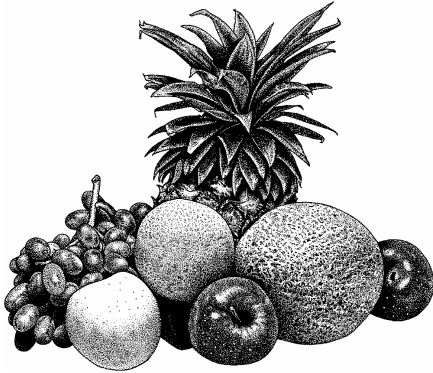
D) In the inside orangutan viewing area you can see a rectangular “hammock” woven from old fire hoses. If it takes 8 feet of hose for each strip, how many feet of hose were used to create this structure?

E) Near the lower outside chimpanzee viewing area you will find a donor recognition wall that is separated into three sections. Each inscribed stone represents a donation to help build the exhibit. Based on the following rates, how many dollars does the section on the left side represent?

- \$250 for small, brick-sized
- \$500 for medium-sized
- \$2,500 for largest without animal
- \$5,000 for plaque with animal relief

F) Weigh yourself on the scale. To which ape (and gender) does your weight most closely correspond?

G) We currently have four orangutans and twelve chimpanzees. If each orangutan eats 4 pounds of produce per day and each chimpanzee eats 5 pounds of produce and other food per day, how many pounds of food are needed in a week to feed the apes at the Zoo? At least 76 lbs.



H) Fill in the blanks with the  $>$ ,  $<$  or  $=$  symbol.

The weight of an adult female chimpanzee is  $>$  the weight of an adult female gorilla.  
The number of chimpanzees on display at the Zoo is  $<$  the number of orangutans.  
The amount of fire hose in the indoor orangutan viewing area is  $>$  the amount on the chimpanzee side.  
The measurement of an orangutan's arms is  $>$  the measurement of its legs.