

RATIO

INVESTIGATION

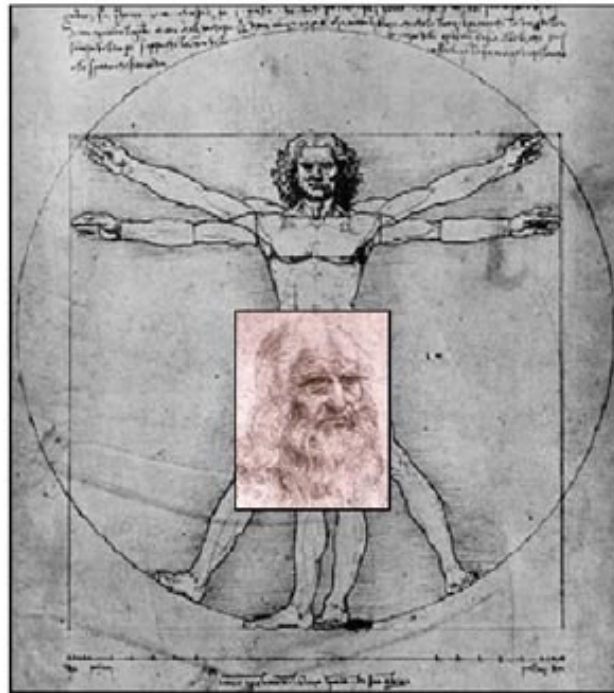
PRIMATE RATIOS – LEMURS AND ME



Q1.

- Look at this leaping Lemur. Use a ruler to measure the parts of the lemur's body and record them in the table below.
- You are a primate. Measure a partner's body parts (Ask permission first!) and record them in the table.
- Now calculate the ratios.
- What do you notice about the ratios?

	LEMUR	HUMAN
Upper leg length		
Lower leg length		
Foot length		
Ratio of foot length to upper leg length		
Ratio of foot length to lower leg length		



Q2. For humans, it is said that:

- the length from your foot to your knee is equal to half the length of your leg
- the length of your foot is equal to your forearm length
- your arm span is the same as your height.

Are these true?

Q3. In humans, the femur bone is the upper leg bone. The fibula bone is the lower leg bone.

Measurements of these bones give an approximation of a person's height. Measure your own femur and fibula, and then use the following formulae to calculate your approximate height. How accurate are these formulae?

$$\text{Height in cm} = (\text{femur length in cm} \times 2.6 + 65)$$

$$\text{Height in cm} = (\text{femur length in cm} + \text{fibula length in cm}) \times 1.31 + 63.05$$

Q4. What are some problems associated with measuring animal body parts? How could these be overcome?