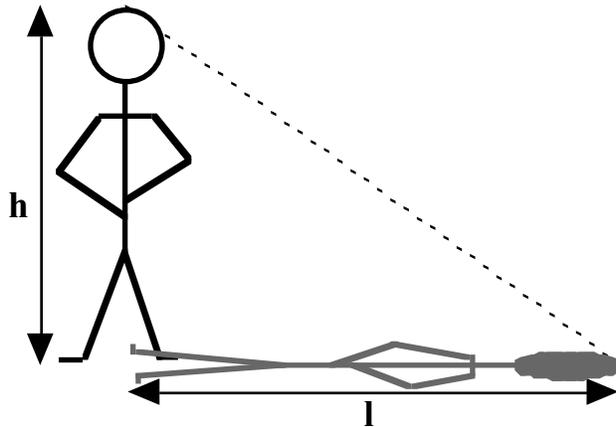


# Using Similar Triangles



## Concept:

The angle of the sun is the same for you and for the flagpole. Both are pretty small compared to the distance we are away from the sun. The triangle formed by you and your shadow will be similar in shape to the triangle formed by the flagpole and its shadow, or

$$h / l = H / L$$

1. Measure your partner's height:  $h = \underline{\hspace{2cm}}$  m
2. Measure the length of your partner's shadow:  $l = \underline{\hspace{2cm}}$  m
3. Measure the length of the flagpole's shadow:  $L = \underline{\hspace{2cm}}$  m
4. Calculate the height of the flagpole using the proportion:  $H = \underline{\hspace{2cm}}$  m

