

Sedgwick activity

Guess Iggy's height



Sedgwick Museum
of Earth Sciences

Try to work out Iggy's height using the following methods....

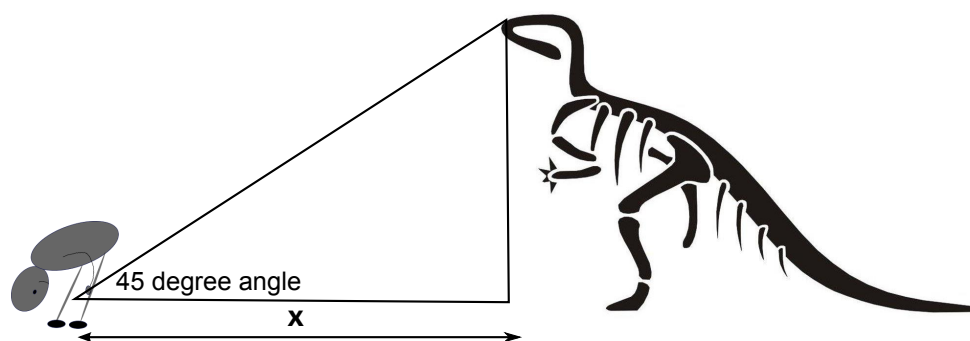
Method 1

A quick way to estimate something's height is by comparing it to an object that you know the size of.

- 1) Pick a friend or a relative and ask them how tall they are.
- 2) Standing a little way away, ask your friend or relative to stand next to Iggy. Please do not touch him - he is very old and delicate.
- 3) Looking closely, see how many times your friend would fit into Iggy's height.

Method 2

- 1) Using the back of this sheet, place your foot with the heel against the line. Make a note of how long your foot is in cm's.
 - a)
- 2) Walk away from Iggy but at regular intervals bend forward and look back at Iggy through your legs (keep your legs as straight as possible). STOP when you are at a point where you can see the very top of his head whilst bending and looking through your legs.
- 3) Turning around to face Iggy, place one foot directly in front of the other (heel to toe) and count how many steps you take until you reach the base that Iggy stands on. Note how many steps you take here
 - b)
- 4) Now multiply the length of your foot (a) with the number of steps (b). This will give you Iggy's height in cm's. What is that in metres ?



Why does this work ?

This works because it relies on a mathematical principle called trigonometry. If you view Iggy through your legs (this is very close to 45 degrees) then the height of Iggy is equivalent to the distance you are from him $x=xb$.



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A vertical ruler with horizontal lines and numbers from 1 to 25 on the right side. The numbers are bold and black. The ruler is oriented vertically, with the number 1 at the bottom and 25 at the top. Each number is aligned with a horizontal line that extends across the width of the ruler.

Place you heel on this
Make a note of the length of your foot