

**Fly Poop
in**

The Pepper

**Comparing the size of the earth
with the
size of the sun**

Grade 11 Essential Design - Scale

MrF

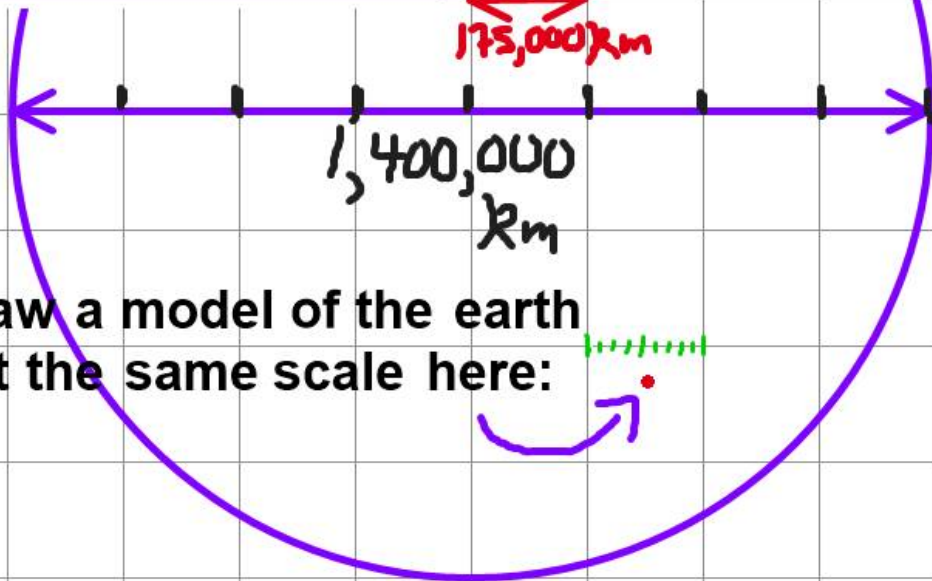
Scale of this drawing:

$$\frac{8 \text{ units}}{1,400,000 \text{ km}} = \frac{1 \text{ unit}}{175,000 \text{ km}}$$

If 1 unit = 1 cm then

$$\frac{1 \text{ cm}}{175,000 \text{ km}} = \frac{1 \text{ cm}}{17,500,000,000 \text{ km}}$$

Scale ratio
1 : 17,500,000,000



draw a model of the earth at the same scale here:

A simple model of the sun and earth

sun diameter: 1.4 Million km
1,400,000 km

earth diameter: 14,000 km

Scale formula $\frac{\text{model length}}{\text{actual length}}$

$$\frac{8 \text{ units}}{1,400,000 \text{ km}} = \frac{x \text{ units}}{14,000 \text{ km}}$$

$$\frac{8 \text{ units} \cdot 14,000 \text{ km}}{1,400,000 \text{ km}} = 0.08 \text{ units} = \frac{8}{100} \text{ units} \approx \frac{1}{10} \text{ unit}$$