

Check your grade in MATH.

Formative....Correct and turn it homework.

Summative....Fill out retake form.

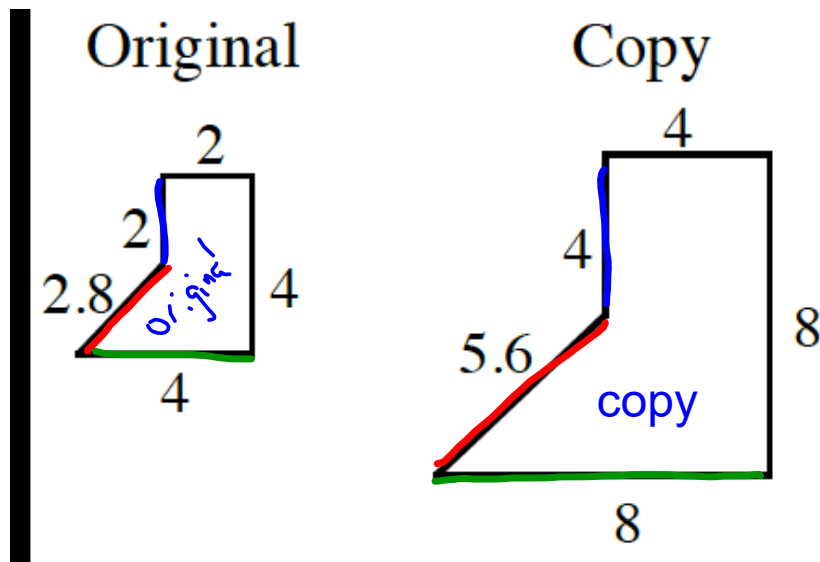
$$\underline{1/7}$$

Scale Factor > 1
Enlargement

Scale Factor < 1
Reduction

Are these shapes similar? **Yes!**

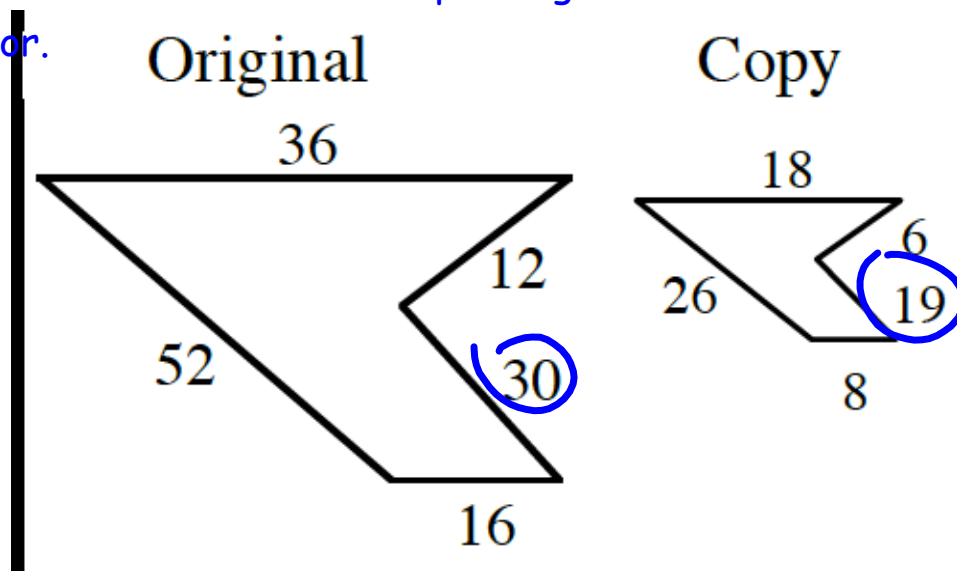
Yes, since all corresponding sides have the same scale factor.



Scale Factor = $\frac{2}{1}$ or 2

Are these shapes similar?

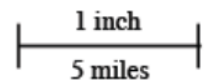
NO, since one set of corresponding sides have a different scale factor.



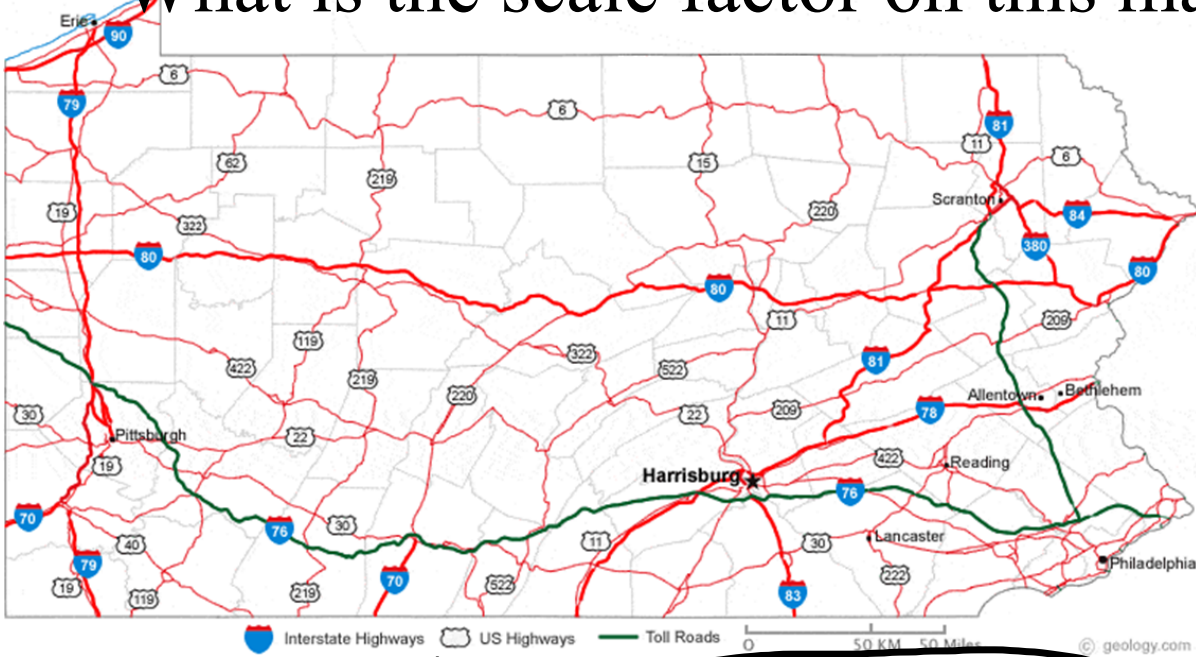
Scale Factor = $\frac{1}{2}$ for most of the corresponding sides

Maps are examples of **scale drawings**. They are reduced versions of the original regions. A map is **similar** to the original region, because it has the same shape. Because of this, maps conveniently allow users to determine distances between two points.

In a scale drawing, it is important to decide on the unit of measure. Maps made in the United States usually represent distances in miles, but they certainly cannot use actual miles as the unit of measure. Otherwise, a map of Pennsylvania would be over 250 miles long and 450 miles wide! A map includes a **scale**, which shows the units in which the map is drawn. An example is shown at right.



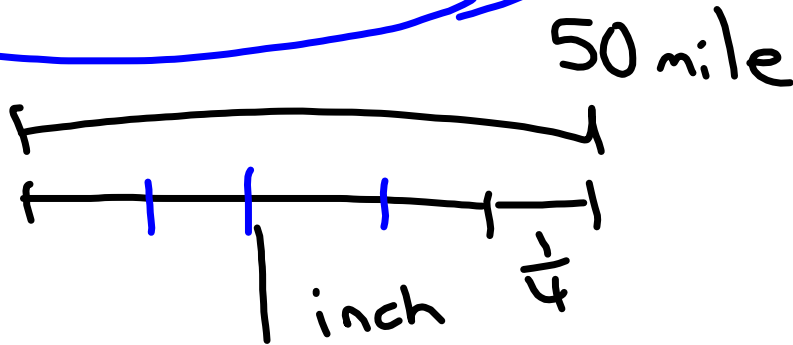
What is the scale factor on this map?



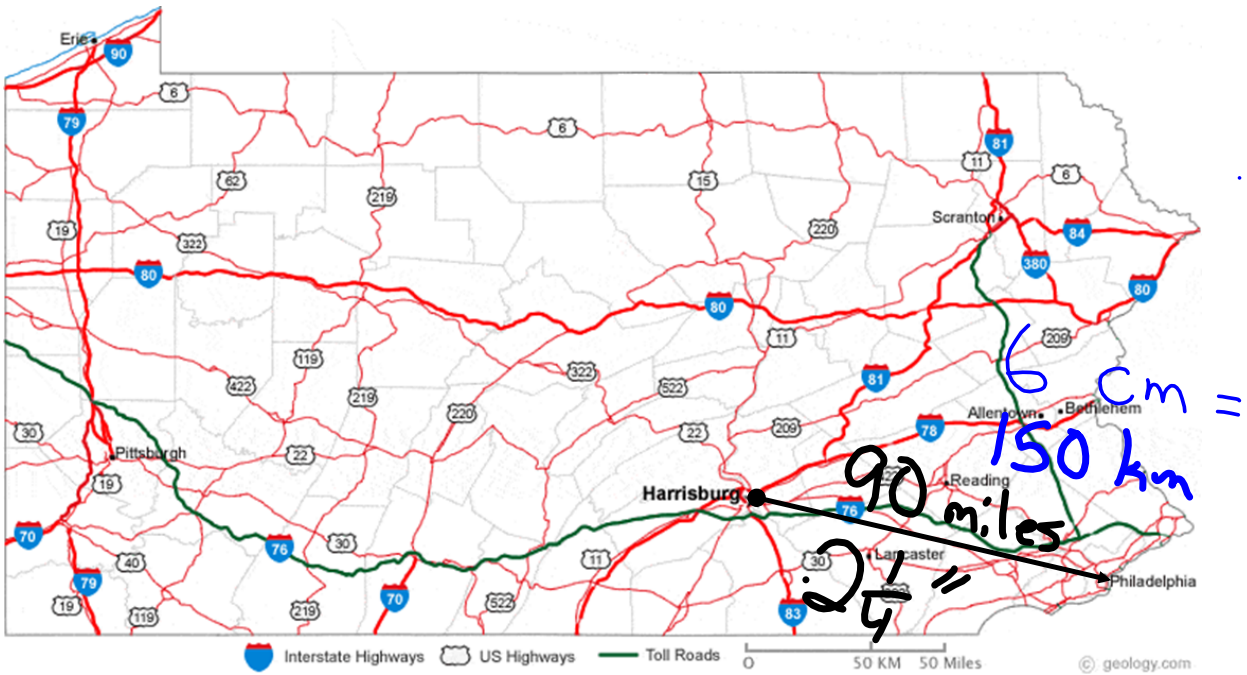
Scale Factor

$1 \text{ cm} = 25 \text{ km}$

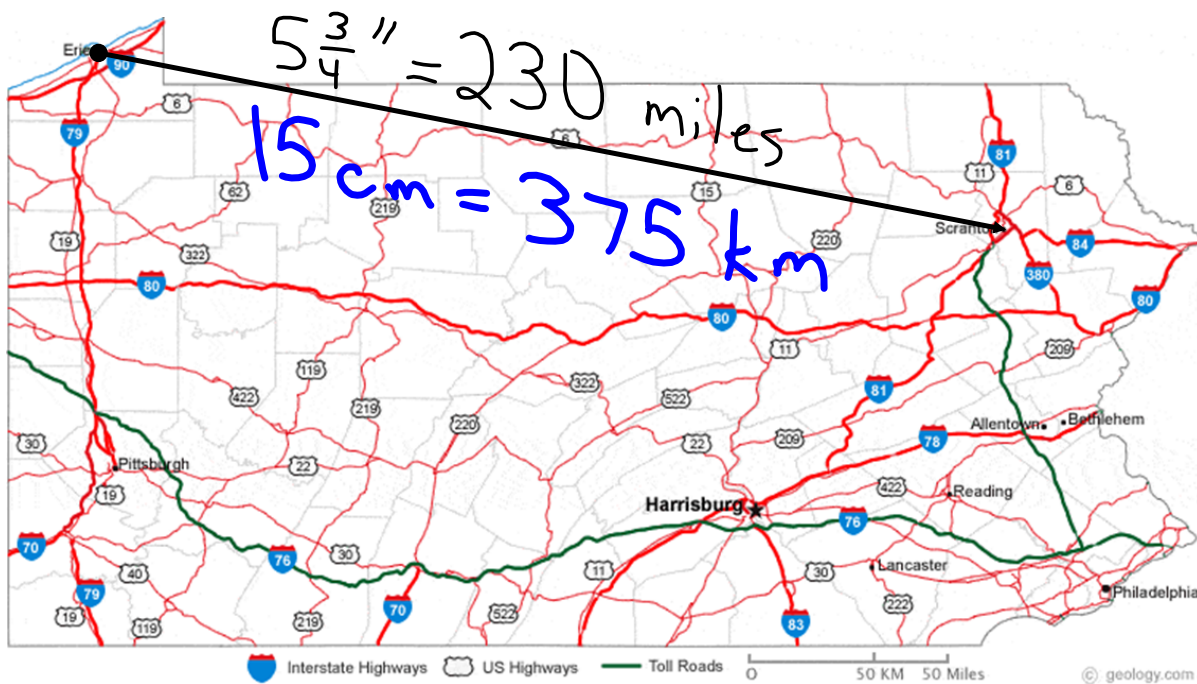
$1 \text{ inch} = 40 \text{ miles}$



$\frac{1}{4} \text{ inch} = 10 \text{ miles}$



What is the distance from Harrisburg to Philadelphia, as the crow flies?



What is the distance from Erie to Dunder Mifflin, as the crow flies?