

September 9th

The length of a rectangle is increased by 40% and the width is decreased by 30%.

Find the percentage change in area.

$$1.4 \times 0.7 = 0.98$$

Therefore the area has decreased by **2%**

The area of an enlarged circle is twice the area of the original circle.

By what percentage has the length of the radius of the original circle been increased?

If the area scale factor is 2,

then the length scale factor is $\sqrt{2} \approx 1.414$

So percentage increase in radius \approx **41.4%**