## Lesson 27

SS4: Draw and interpret scale diagrams of 2-D shapes.

1. This is not a math song but hopefully it will put a smile on your face and teach you a little bit about scale factor. I am not sure if you are a fan of comedies or not. I am not a big Will Farrell fan; however, this scene is an excellent example of NOT comprehending scale factor. I think we can all use a laugh... about a school for "ants"?...

## https://www.youtube.com/watch?v=NQ-8luUkJJc

***If we multiplied that model by a scale factor of 3 , would we be able to fit children in there and teach them how to read?... I should forward my latest YouTube videos to Derek Zoolander.
().) What scale factor would you need for the enlargement that would be big enough to be a regular sized school?
2. Pop quiz time. Answer the following in your notebooks on page 68. If you get stuck on a question, refer to your notes. ())


6 . If the height of the original picture is 3 cm , what is the height of the enlargement? $\qquad$

## 3. Check your answers:

1. Scale factor means how many times bigger or smaller your scale diagram is compared to your original. Ex a scale factor of 4 means that you have an enlargement $4 x$ the size of your original. A scale factor Of 0.2 means you have a reduction that is 0.2 or $1 / 5$ the size
2. Scale factor= scale diagram $\div$ original ( ${ }^{* * *}$ we need to divide the corresponding sides)
3. It's an enlargement. It is bigger than the original
4. The scale factor for this enlargement will be more than one. I would estimate 2.
5. $\mathrm{SF}=\mathrm{SD} \div$ original $\quad \mathrm{SF}=7 \mathrm{~cm} \div 4 \mathrm{~cm}=1.75$
6. If the original is 3 cm in height, and the scale diagram is 1.75 times bigger, the height of the enlargement will be $3 \times 1.75=5.25 \mathrm{~cm}$

## 4. In your notebooks on page 68 B, make a page of graph paper. Make an enlargement of this shape, by a scale factor of 2.


5. Check your enlargement with mine.

6. Tomorrow we are going to begin our study of similarity, commencing with triangles and how to label them. Did you know that a triangle is a polygon? Do you know what a polygon is? Watch this as a warmup for tomorrow's lesson.
https://www.youtube.com/watch?v=laoZhhx 19s

