## Lesson 27

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

 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-8IuUkJJc

\*\*\*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. <sup>(C)</sup>



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

## <u>Check your answers:</u>

- 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 4x the size of your original. A scale factor 0f 0.2 means you have a reduction that is 0.2 or 1/5 the size
- 2. Scale factor= scale diagram ÷ 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. SF = SD  $\div$  original SF= 7cm  $\div$ 4cm= 1.75
- 6. If the original is 3cm in height, and the scale diagram is 1.75 times bigger, the height of the enlargement will be 3x1.75= 5.25cm

## 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=IaoZhhx I9s