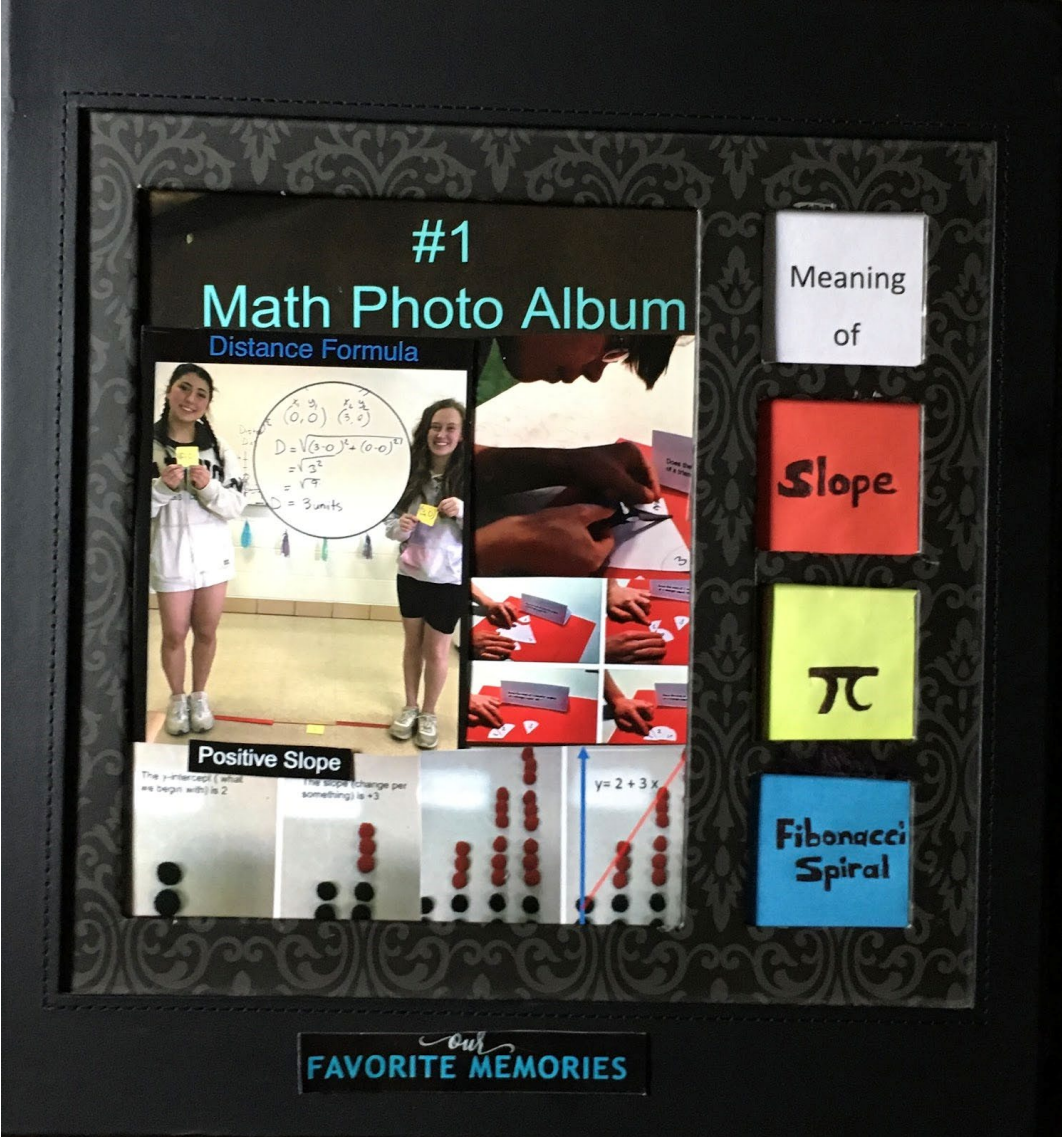


Mathematics is a language.

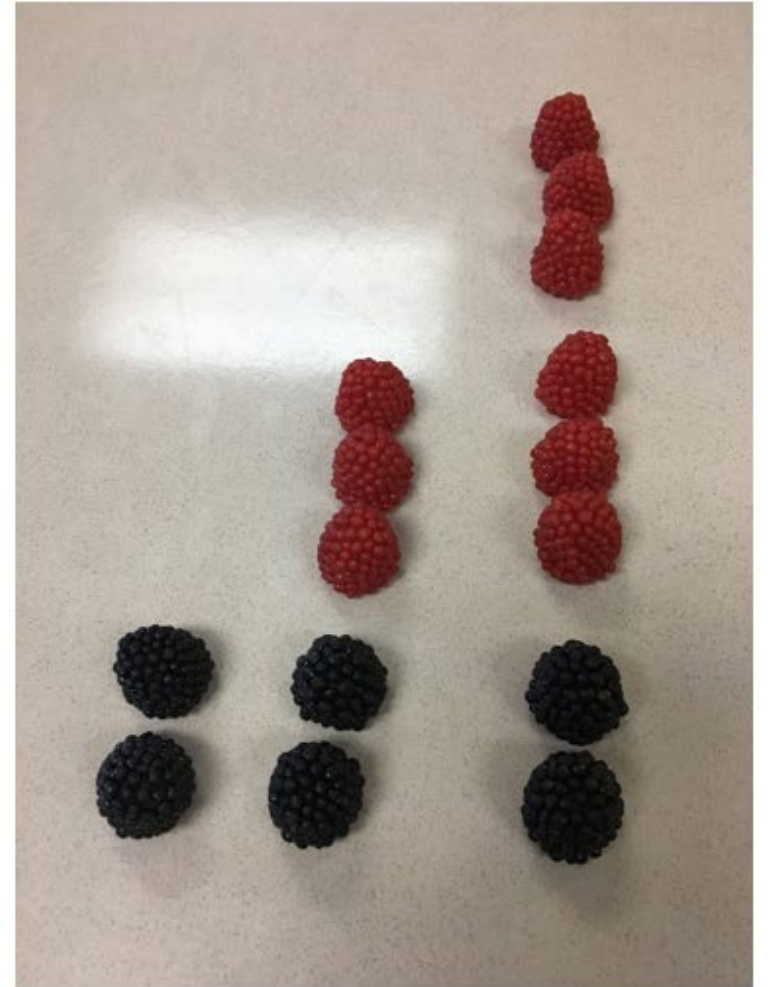
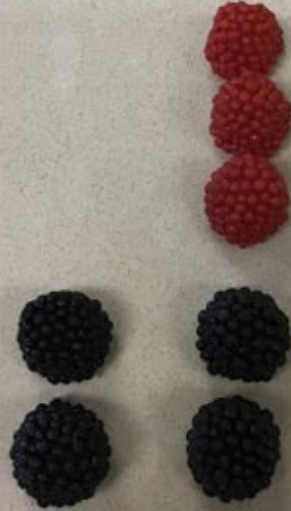


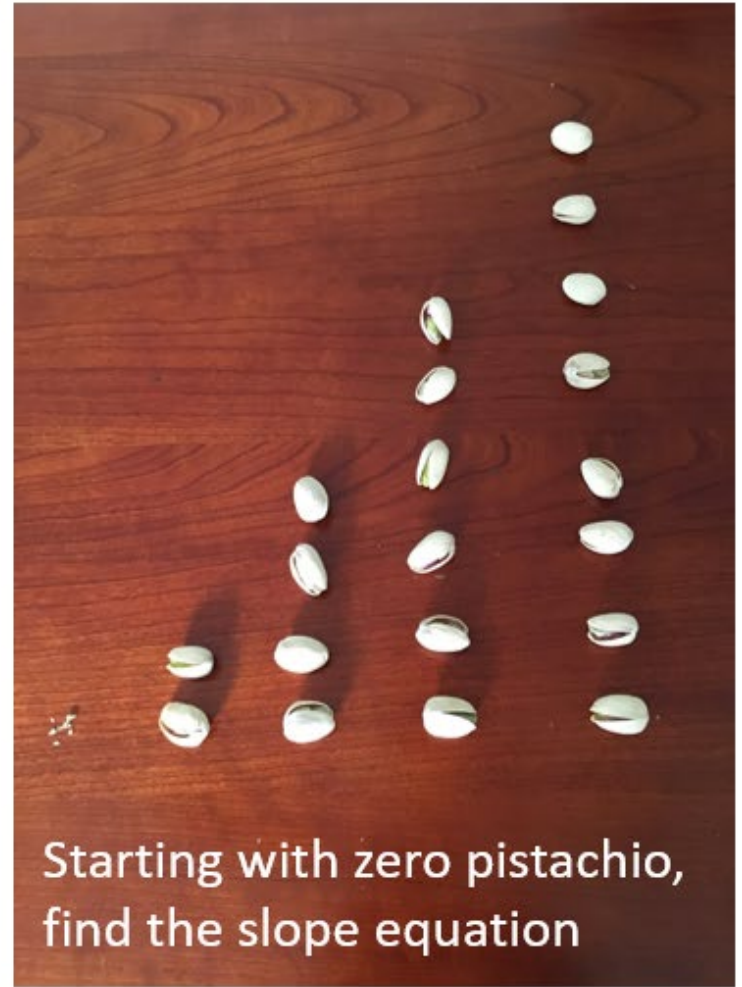
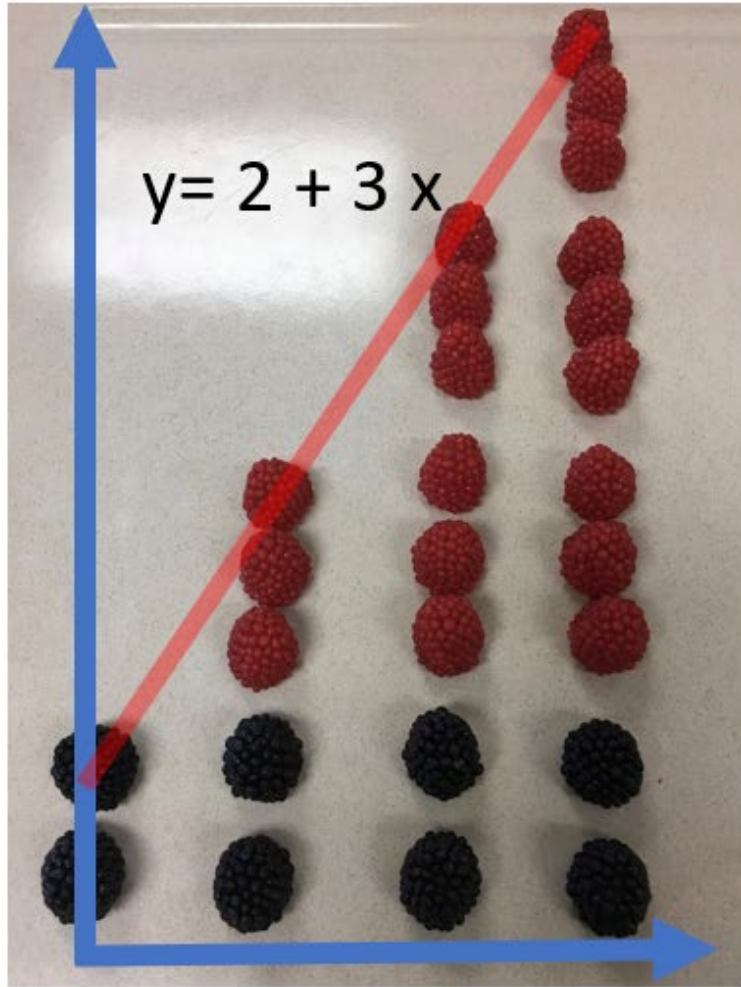
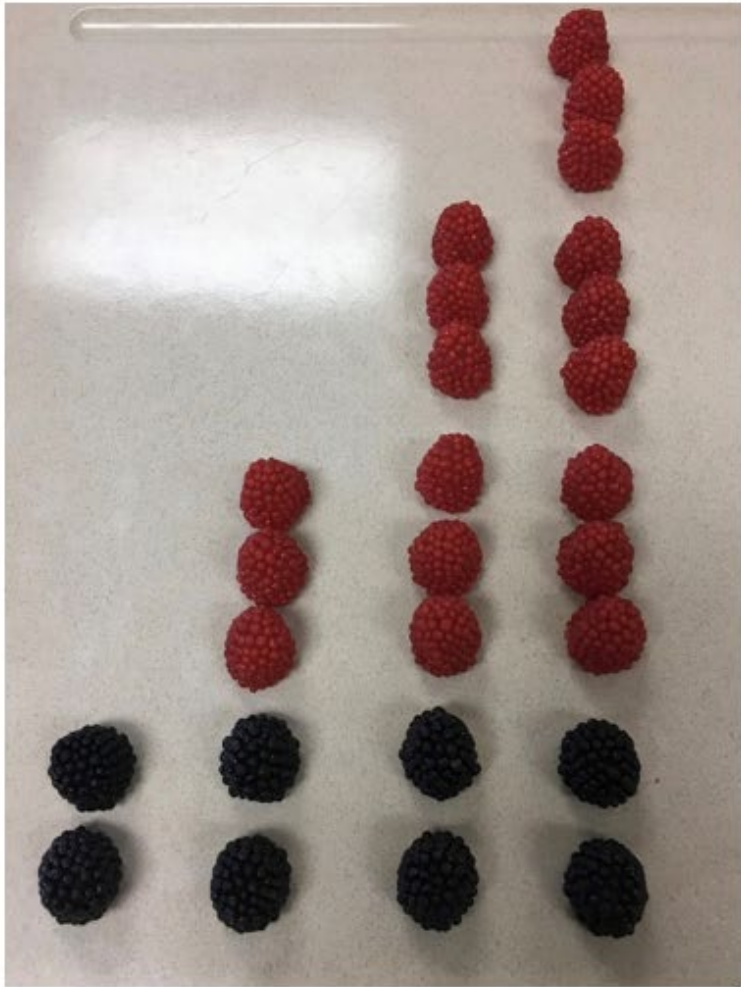
## Concept of Positive Slope

The y-intercept ( what we begin with) is 2

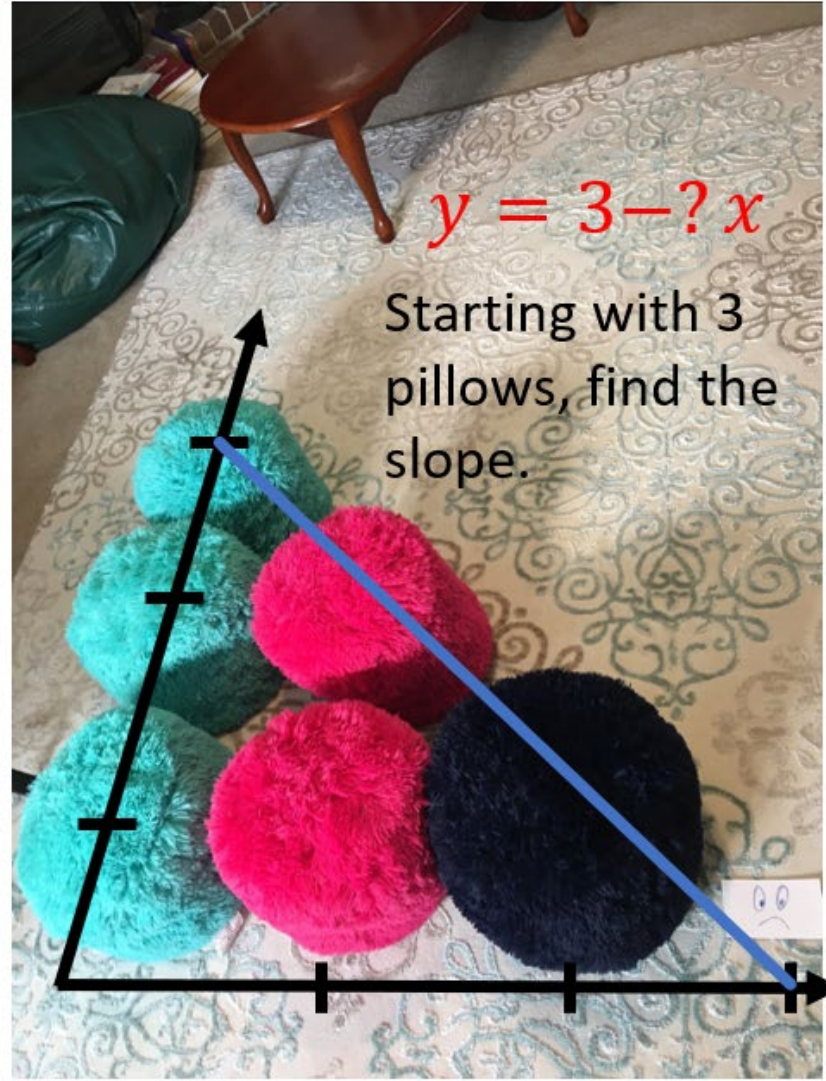


The slope (change per something) is +3

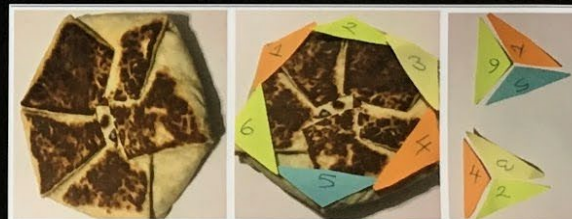
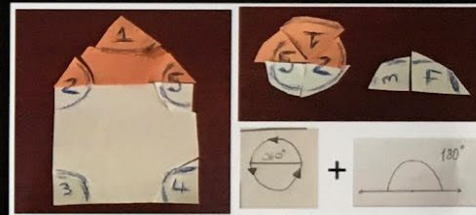
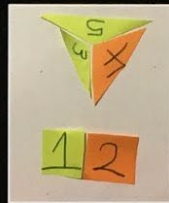
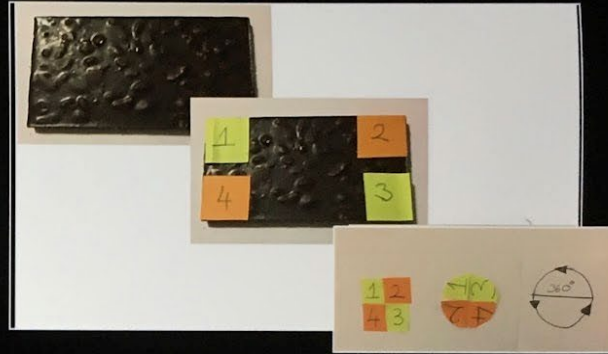
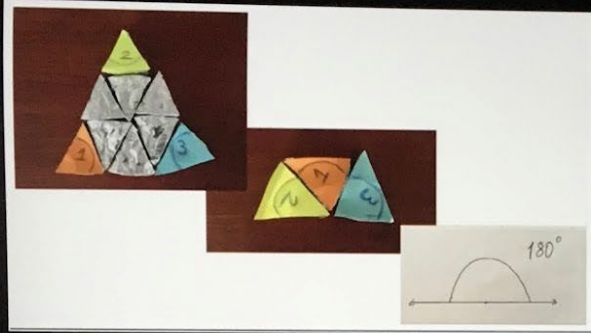




## Concept of Negative Slope



# Interior Angels

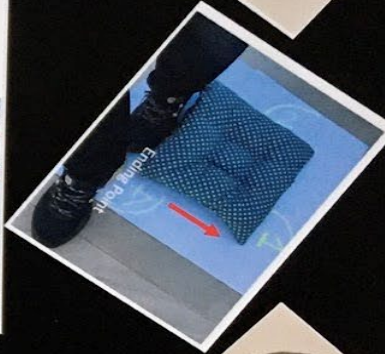
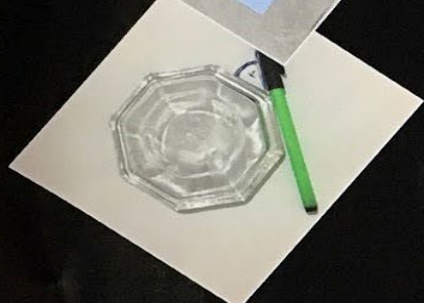
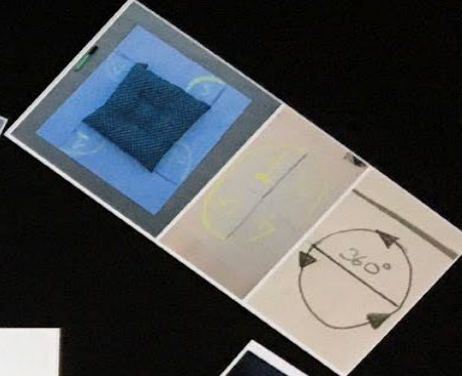


Considering 180 degree increments for each shape, could you come up with a formula to represent relationships between N - the number of sides, and the sum of the total interior angles?

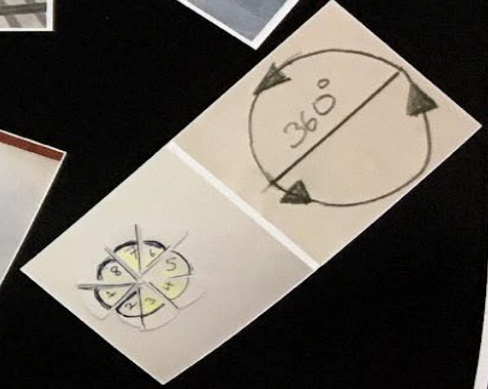
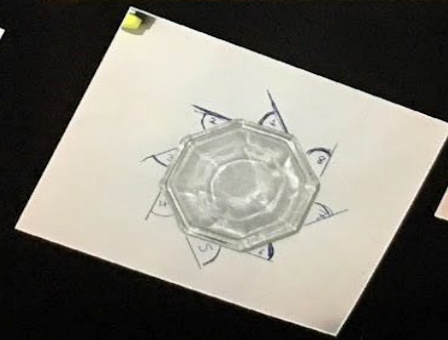


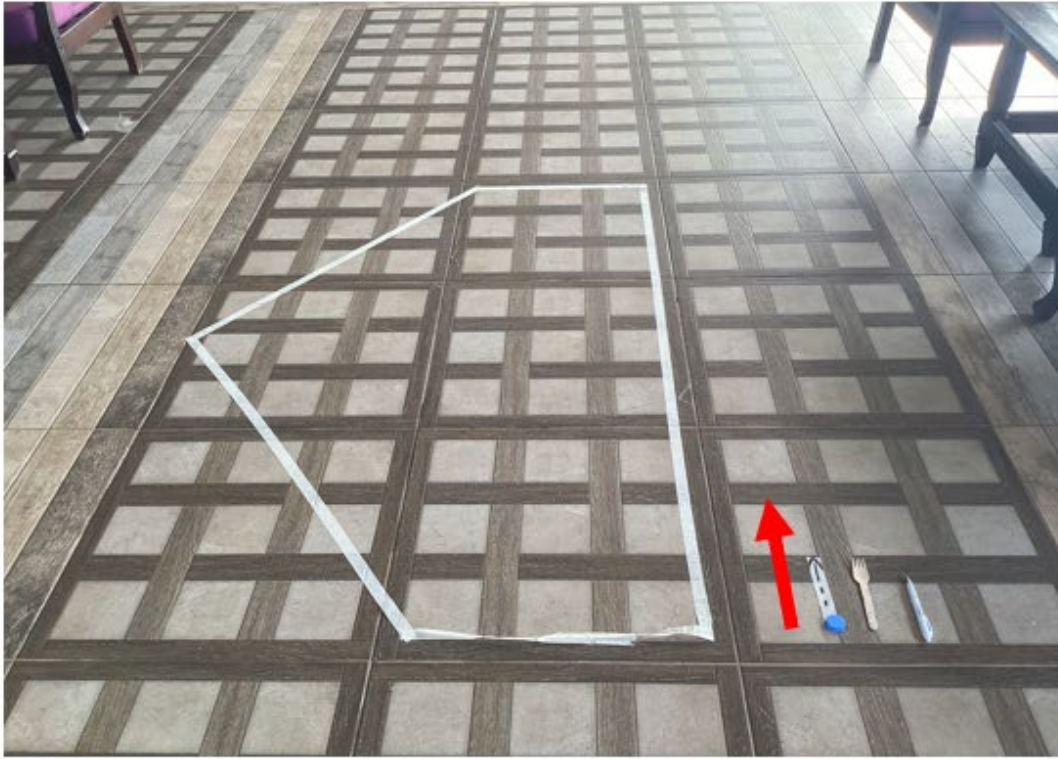
Considering 180 degrees increments for each shape, could you come up with a formula to represent relationships between  $N$  -the number of sides, and the sum of the total interior angles?

# Exterior Angles



Can you guess the sum of exterior angles of the pentagon?

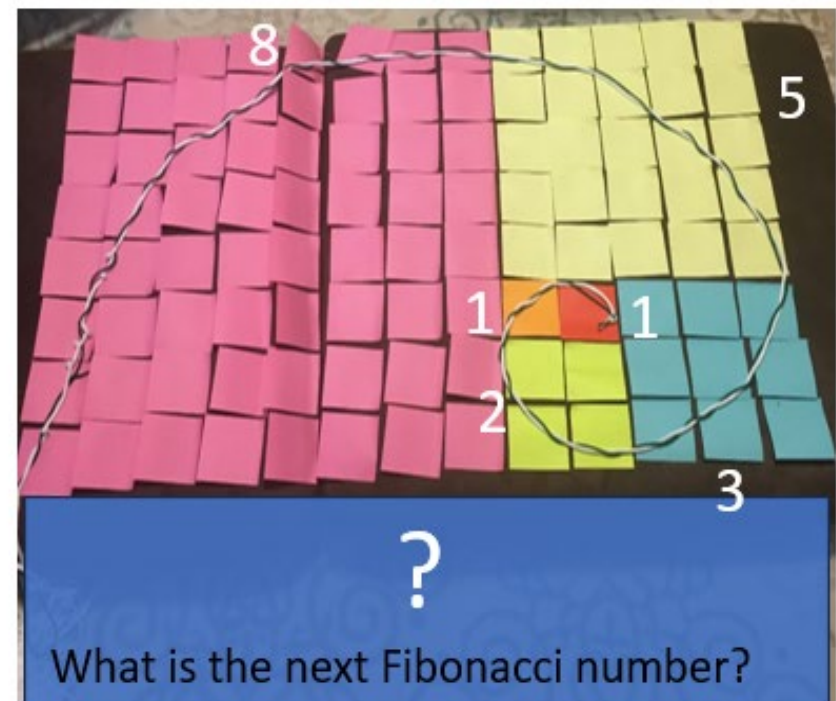
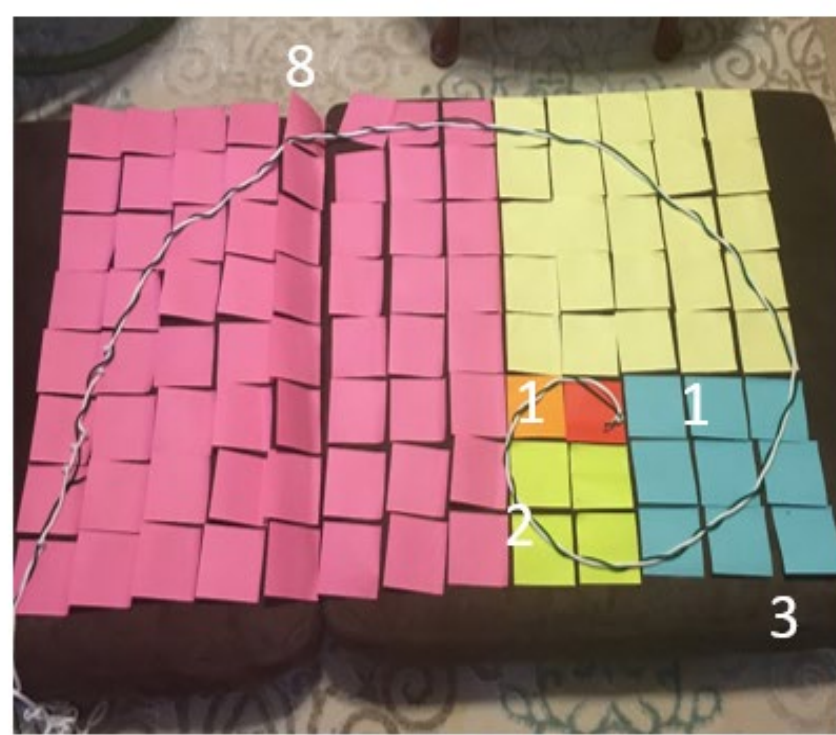
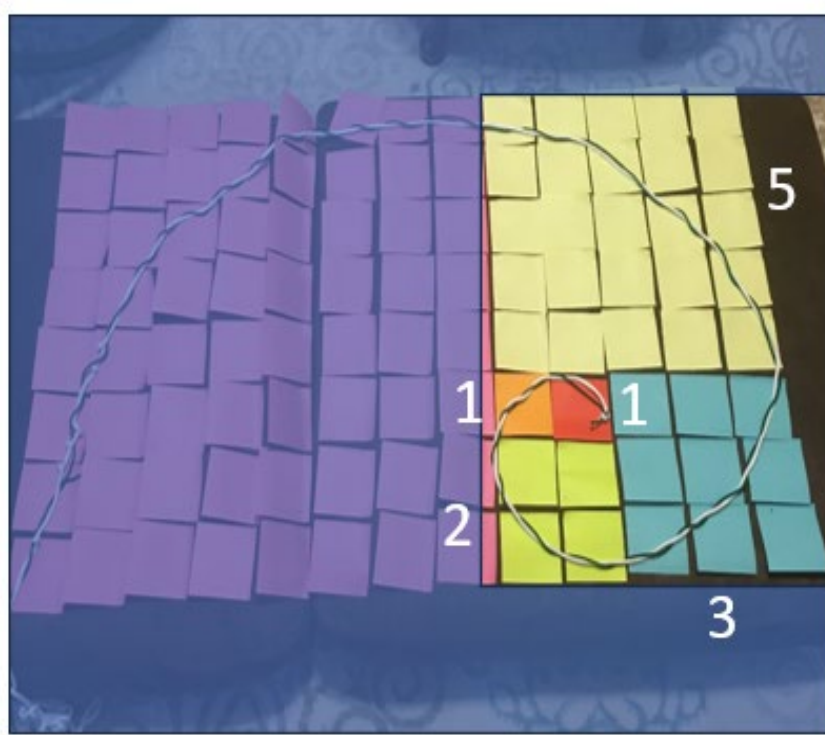




Can you guess the sum of exterior angles of the pentagon?









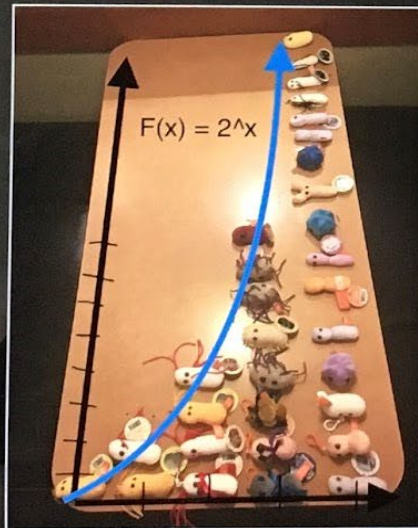
# An Exponential Growth Function



Exponential Growth  
of microbes:  $F(x) = 2^x$   
0 division  $2^0 = 1$  microbe

Exponential Growth  
of microbes:  $f(x) = 2^x$

0 division  $2^0 = 1$   
1 division  $2^1 = 2$   
2 division  $2^2 = 4$



Exponential Growth  
of microbes:  $f(x) = 2^x$

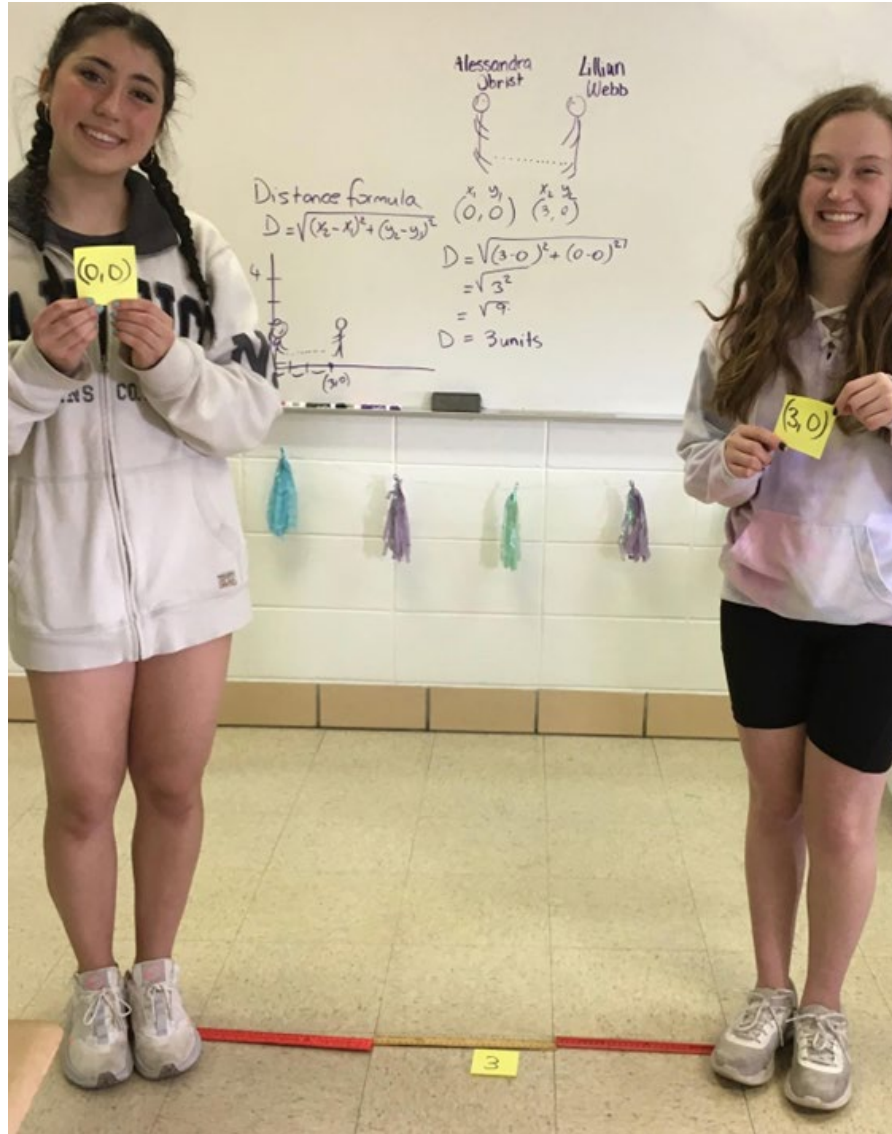
0 division  $2^0 = 1$   
1 division  $2^1 = 2$   
2 division  $2^2 = 4$   
3 division  $2^3 = 8$   
4 division  $2^4 = 16$

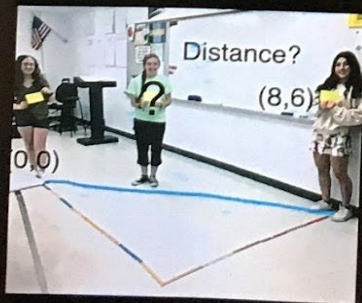
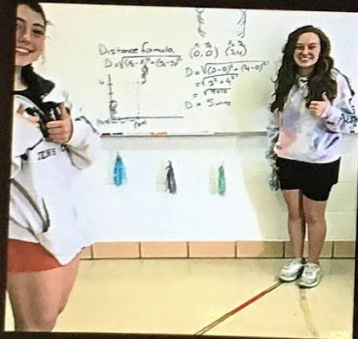
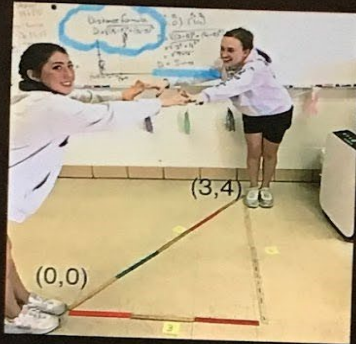
Exponential Growth  
of microbes:  $F(x) = 2^x$

0 division  $2^0 = 1$  microbe  
1 division  $2^1 = 2$  microbes  
2 division  $2^2 = 4$  microbes  
3 division  $2^3 = 8$  microbes  
4 division  $2^4 = 16$  microbes  
5 division ?

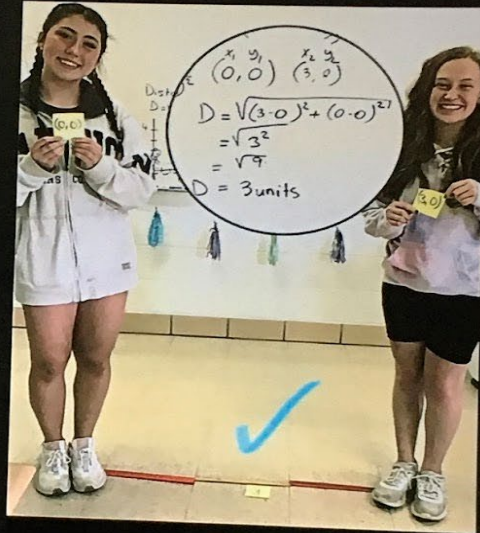


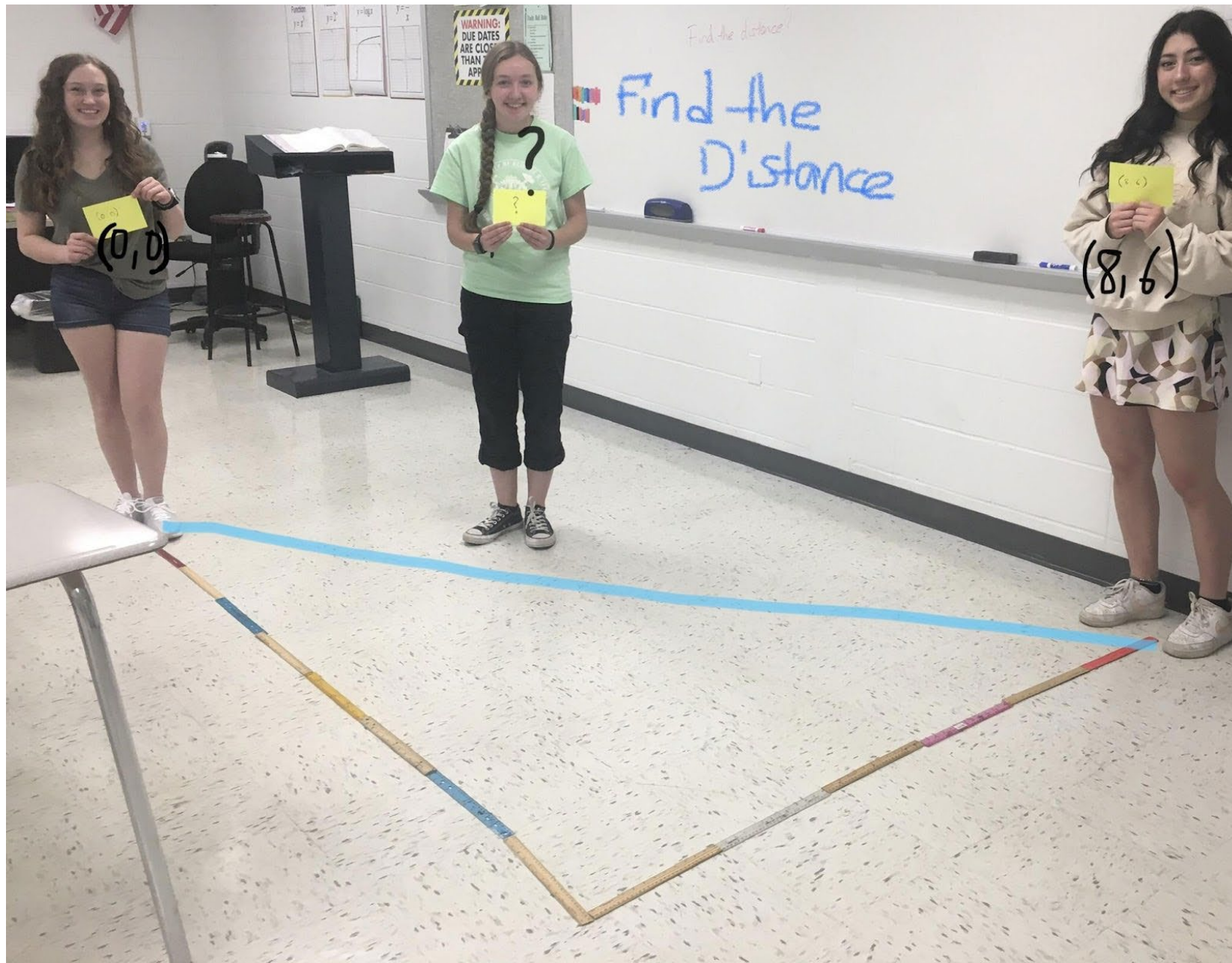
Distance Formula with my math models 😊 -High School Kiddos.





## Distance Formula

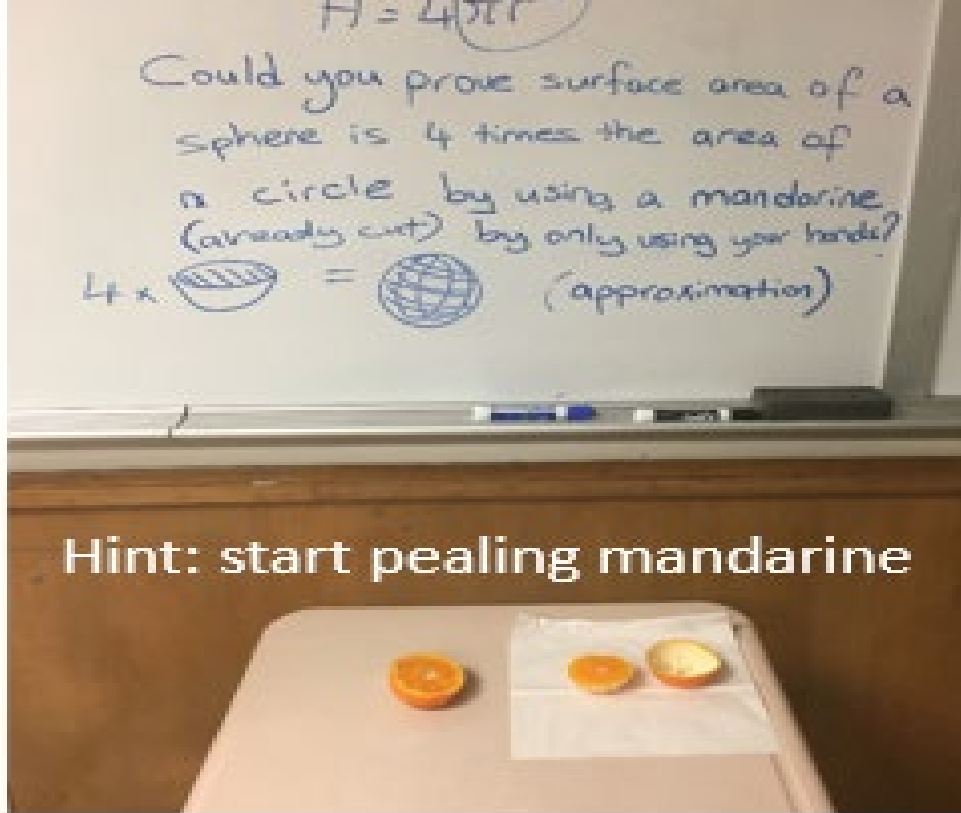
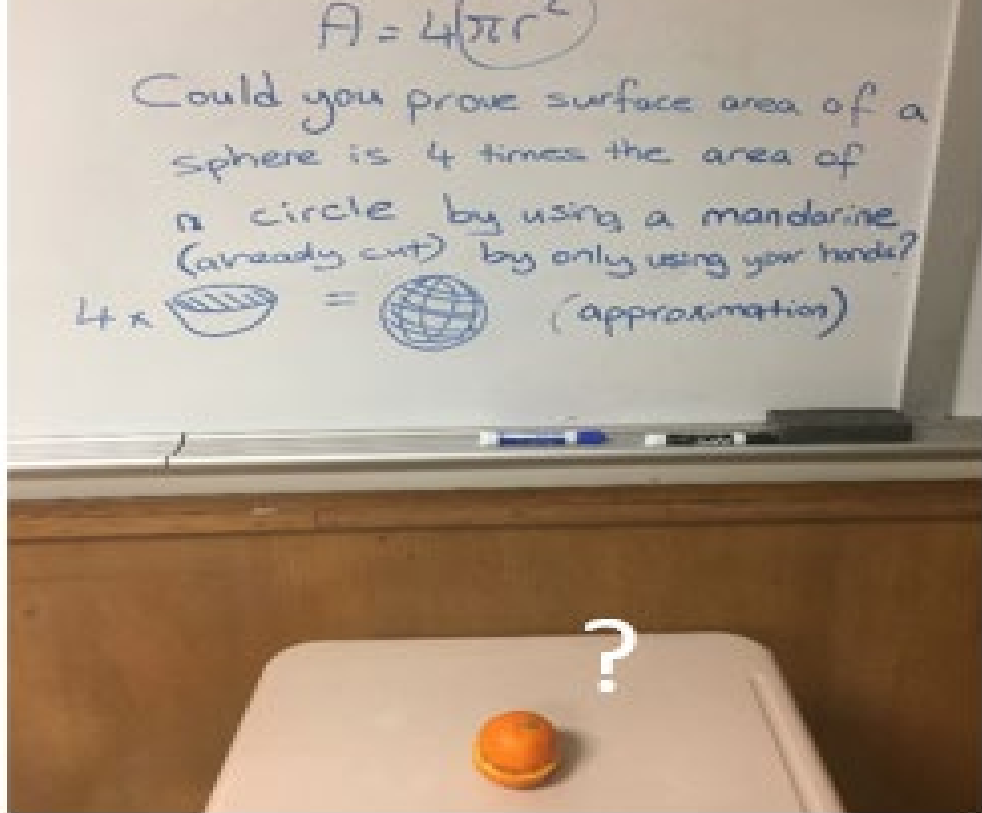




EMERGENCY  
FIRE  
BLANKET

$$X + 100 = 500 + 200 + 200 + 200$$
$$X = ?$$





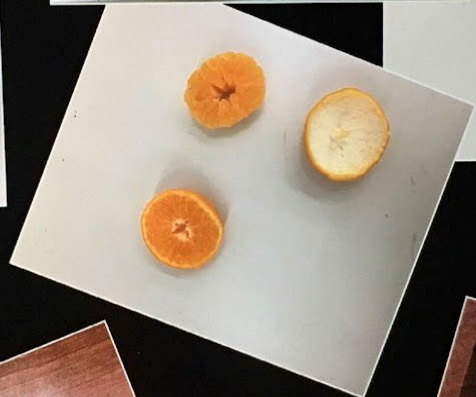
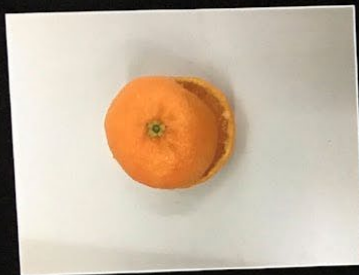




# Experimenting with surface area of a sphere



$A = 4\pi r^2$   
Could you prove surface area of a sphere is 4 times the area of a circle by using a mandarine (already cut) by only using your hands?  
4 x  =  (approximation)



- Greedy Cup, Practical Joke Cup
- Pythagorean cup, Pythagoras of Samos island.