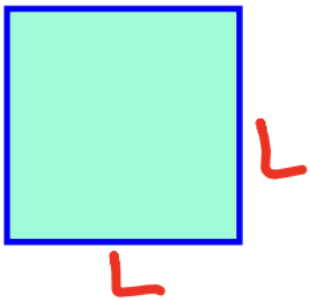
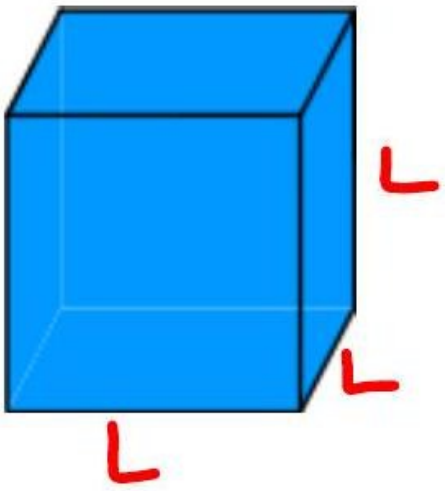
Math 1030 #17d
Fundamentals of Geometry
Scaling



$P = 4L$
$A = L^2$

	double	triple	quintuple
L			
P			
A			



$SA = 6L^2$

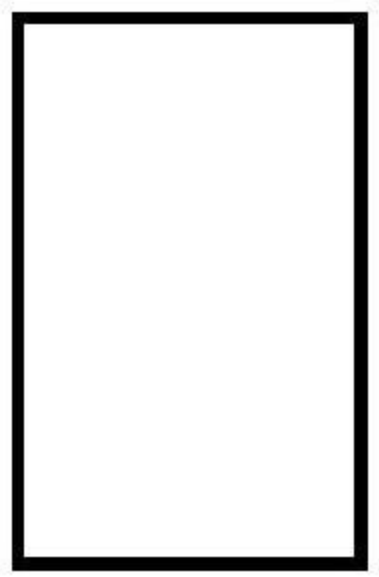
$V = L^3$

	double	triple	quintuple
L			
SA			
V			

Scaling a 2D Object

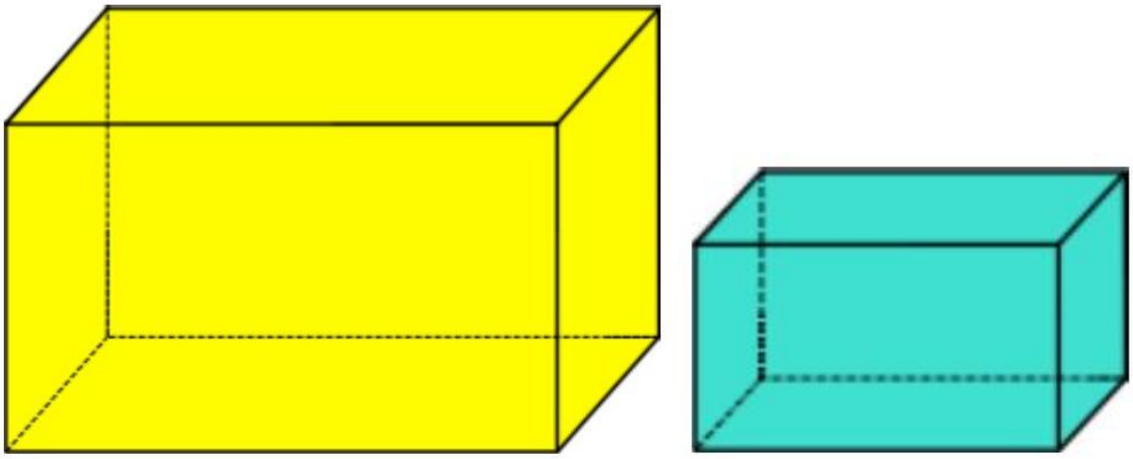
EX 1:

If you triple all sides of a $3-$ ft by $5-$ ft patio, how do the area and perimeter of the new patio compare with the old?



Scaling a 3D Object

EX 2:



a) If the smaller box above can be painted with 2 cans of paint, how many cans will it take to paint a similar box with dimensions four times as large?

b) If the larger box holds 512 cubic centimeters of styrofoam pebbles, how much will the smaller box hold?

c) If one wants to tape the larger box in all 3 directions, how much more tape must one have than it took to tape the smaller one?

EX 3:

A model version of a T-Rex is 2 feet tall with a surface area of 3 square feet and volume of 1 cubic foot. If the actual T-Rex (which is proportionally identical to the model) is 18 feet tall, what is the volume and surface area?