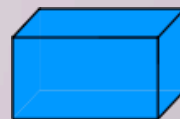
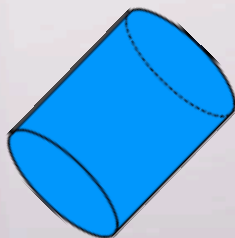


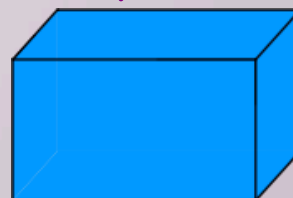
Math 1030 #17d

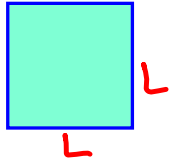


Fundamentals of Geometry



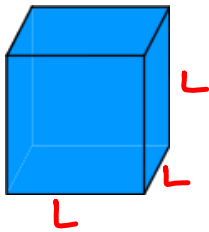
Scaling





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

	double	triple	quintuple
L			
P			
A			



$$SA = 6L^2$$
$$V = L^3$$

	double	triple	quintuple
L			
SA			
V			

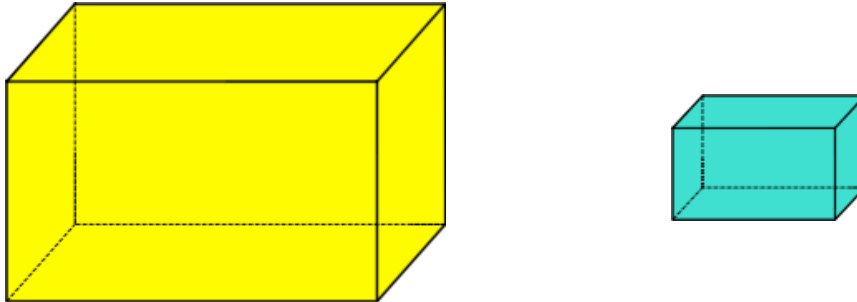
### Scaling a 2D Object

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?

