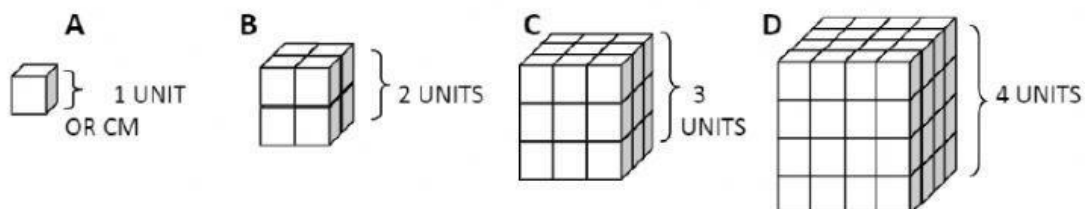


Name:

Class:

The one we're most interested in, though is the surface area to volume ratio, which is just

Surface area $\div$ volume



Calculate the Surface Area to Volume ratio for each cube in the picture above.

Example: A

Surface Area = $1 \times 1 \times 6 = 6$

Volume = $1 \times 1 \times 1 = 1$

Surface Area to Volume = $6/1 = 6$

Total surfaces = $6 \times 1 = 6$

Figure	Total number of cubes	Surface area of figure (l x w x 6)	Volume of figure (l x w x h)	Surface area to volume ratio (SA/V)	Total Surface of individual cubes (6 x #cubes)
A	1	6	1	6	6
B	8				
C	27				
D	64				

1. What happened to the surface area as the size increased?
2. What happened to the volume as the size increased?
3. What happened to the surface area to volume ratio as the size increased?

4. Which cell has a larger surface area to volume ratio a very large cell or a very small cell?
5. Which cell can get nutrients and waste out faster a very large cell or a very small cell?