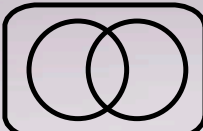
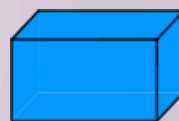


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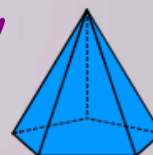
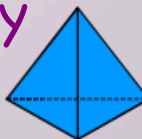
Math 1030 #17c



Fundamentals of Geometry



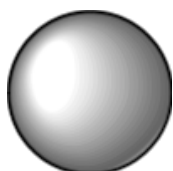
3-D Geometry



A Few Formulas

Surface area

Volume

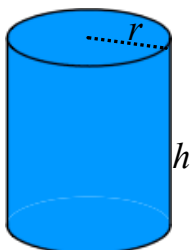
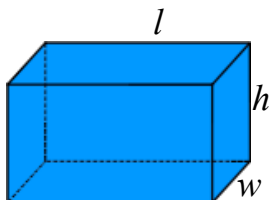
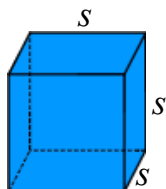


$$S = 4\pi r^2$$

$$V = \frac{4}{3}\pi r^3$$

S = sum of area if all sides

V = Bh (area of the base·height)



EX 1: A warehouse sells cylindrical tanks in these dimensions:

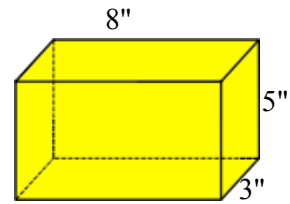
radius 40 ft and height 80 ft

radius 5 ft and height 8 ft.

a) How many of the smaller tanks would you need to purchase to hold the same amount as one of the larger tanks?

b) Compare the surface area of the larger tank to the total surface area of all the smaller tanks.

EX 2: I want to fill this box with skittles for a gift.



- a) How much paper will it take to just cover the box (in square inches)?

- b) How many skittles will it hold, assuming there are 32 skittles per cubic inch?

- c) If I want to tape the box in all three directions, how much tape will it take?

