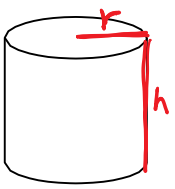
Date:_____

7.3 Notes: Volume of a Cylinder

The volume of a cylinder can be found using a modified version of the volume formula:

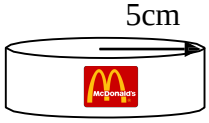


Volume = (Area of the circle) x height

$V = (\pi r^2) \times h$

$= (\pi \times r \times r) \times h$

Find the volume of each cylinder:



$V = (\pi r^2) \times h$

$= (\pi \times 5^2) \times 3$

$= (\pi \times 5 \times 5) \times 3$

$= (3.14 \times 5 \times 5) \times 3$

$= 78.5 \times 3$

$= 235.5\ cm^3$

$r = d \div 2$

$r = 8 \div 2$

$= 4cm$

$V = (\pi r^2) \times h$

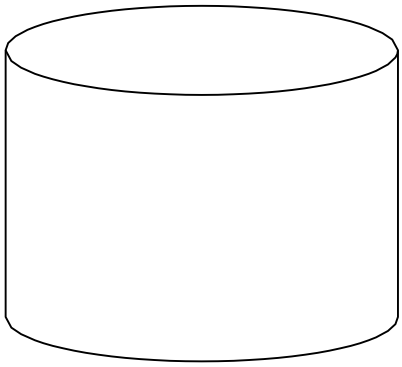
$= \pi 4^2 \times 9$

$= (3.14 \times 4 \times 4) \times 9$

$= 50.24 \times 9$

$= 452.16 cm^3$

Ricky buys a can of Motor Oil at the track. It is 15cm high and has a diameter of 12 cm. How much Motor Oil could fit in the can?



Stevie buys Axe in a cylindrical container. It has a 3cm radius and is 8cm tall. However, it is only $\frac{5}{8}$ full. How much Axe is really in the container?

Johnny wants to put 300 cm^3 of Anti-Fungal cream in a cylindrical container. He wants the base to have a radius of 4 cm. How tall would the container have to be?