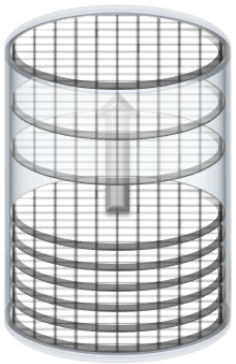
Volume of a Cylinder

- How would I describe the parts used to construct a cylinder?

The volume of a cylinder can be described as… $V = base\ area \times height$.

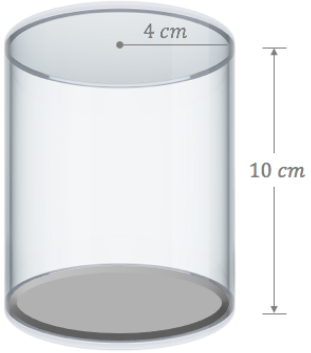
- How could I use the diagram to illustrate $V = base\ area \times height$ for a cylinder?



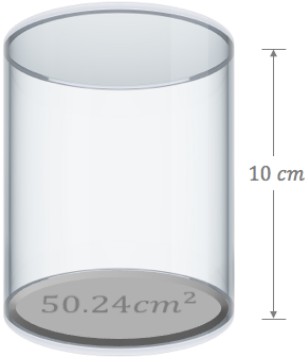
The bases of a cylinder are circles. To calculate the area of a circle I'll use the formula $A = \pi r^2$.

- How would I explain the formula $A = \pi r^2$?

- How would I explain using the formula $A = \pi r^2$ to calculate the base area of this cylinder?

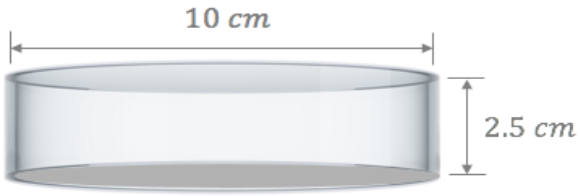


- How would I explain completing my solution for the volume of this cylinder?



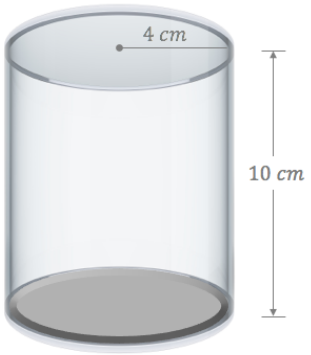
My solution for determining the volume of this cylinder will require a calculation adjustment.

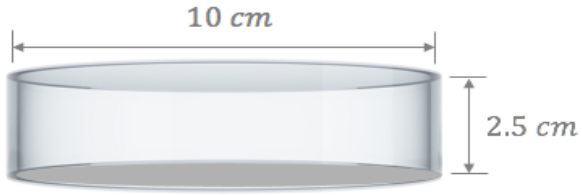
- How would I explain the calculation adjustment?



- How would I explain and show my solution steps for calculating the volume of this cylinder?

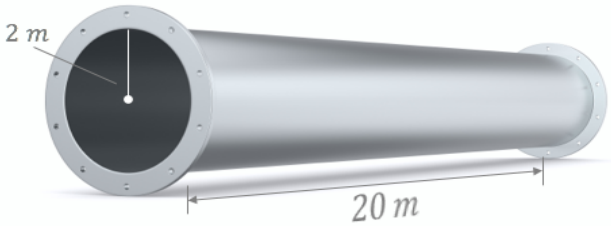
We described the volume of both cylinders as… $V = base\ area \times height$.





- How could I rewrite $V = base\ area \times height$ as an algebraic formula for cylinders?

I'll use the formula $V = \pi r^2 h$ to calculate the volume of this cylinder.



- How would I explain and demonstrate substituting values into the $V = \pi r^2 h$ formula?

- How would I explain and demonstrate evaluating the formula $V = \pi r^2 h$?

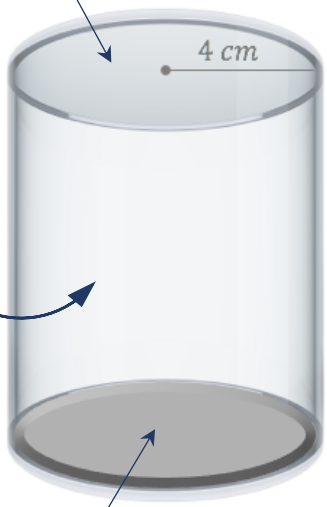
Volume of a Cylinder

Which statements do I feel confident explaining and demonstrating?
Which statements do I <u>not</u> feel confident explaining and demonstrating?

I can explain and demonstrate calculating the volume of a cylinder using… $V = base\ area \times height$

I can write $V = base\ area \times height$ as an algebraic formula

I can explain and illustrate the parts used to construct a cylinder



I can explain and demonstrate calculating the volume of a cylinder using $V = \pi r^2 h$

I can explain why the volume of a cylinder can be written as … $V = base\ area \times height$

I can explain the formula $A = \pi r^2$

I can explain and demonstrate using the formula $A = \pi r^2$ to calculate the base area of a cylinder