


Paper Roll

 Paper_Roll_Carpet.dv

Questions?



Estimate the length of the roll.

What is a reasonable range?



What do we need to know?

How does paper thickness alter the length of the roll?

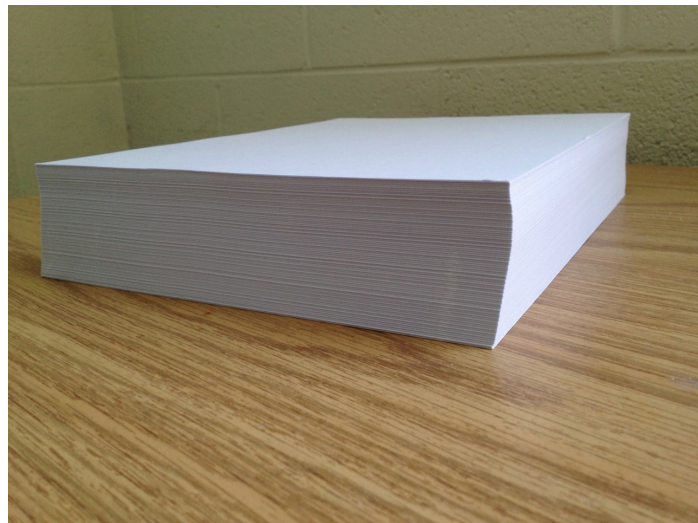
Brainstorm:

What do we need to know about the roll?



How can we use what we know?

Can we look at something simpler first?



How long will your stack be if we lay it end to end?

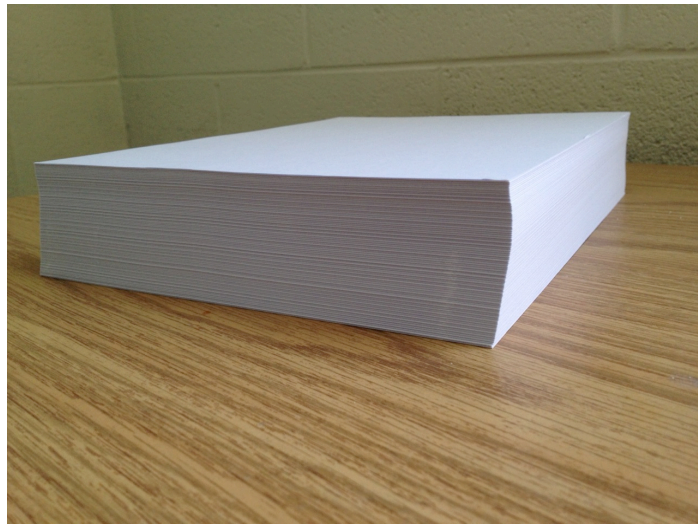
What do we need to know about the printer paper?

500 sheets → 5.1 cm thick

One sheet of paper is

Length		⇅
1	=	0.1
Millimeter		Centimeter

How long will the stack be if we lay it end to end?

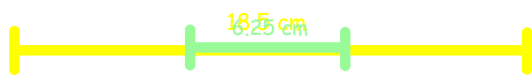


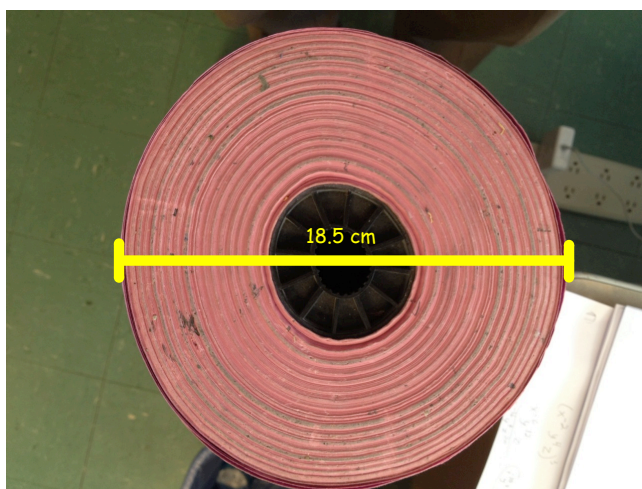
What do we need to know?

Proportions

Determining the number of sheets in the stack.

How many sheets thick is the roll?



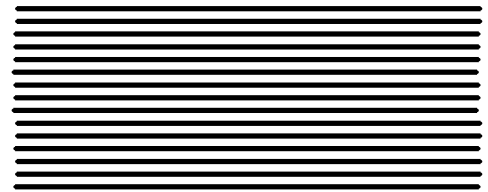
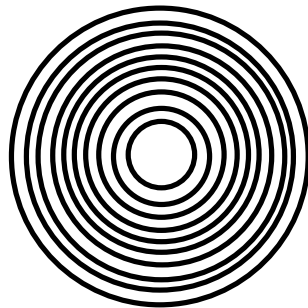




Paper Roll

VS.

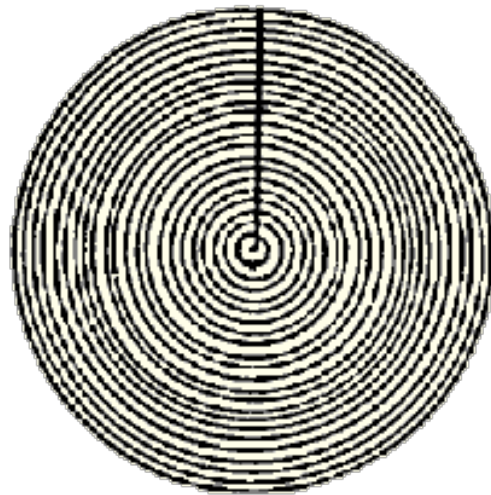
Paper Stack




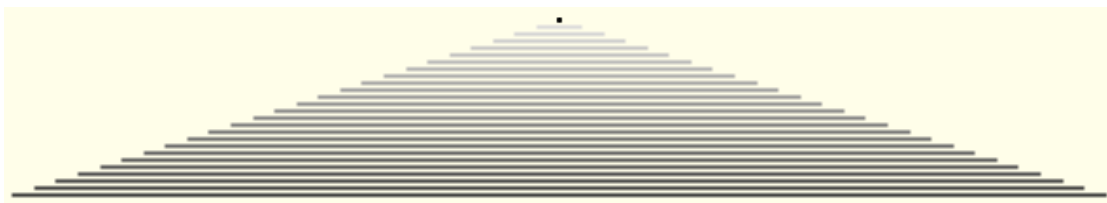
Thickness:

Total Length?

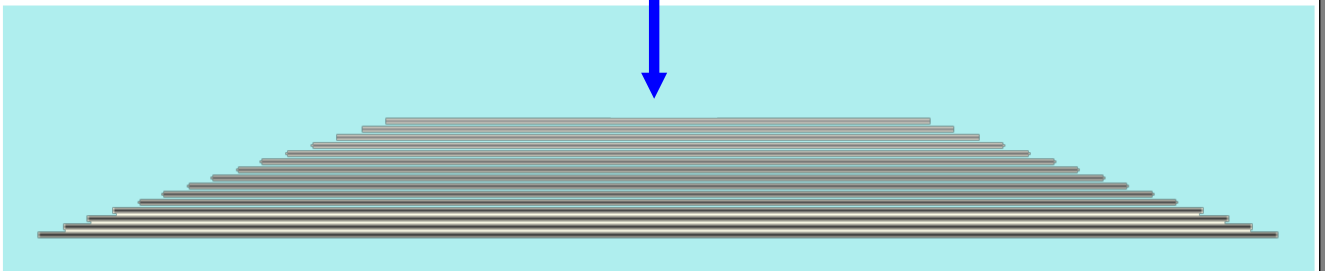
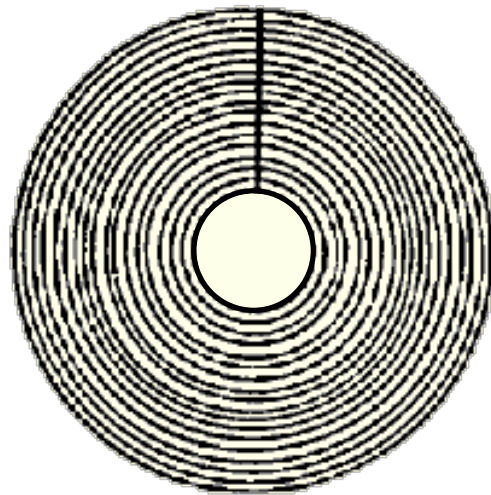
Circles - Another View



 Circle_Slices

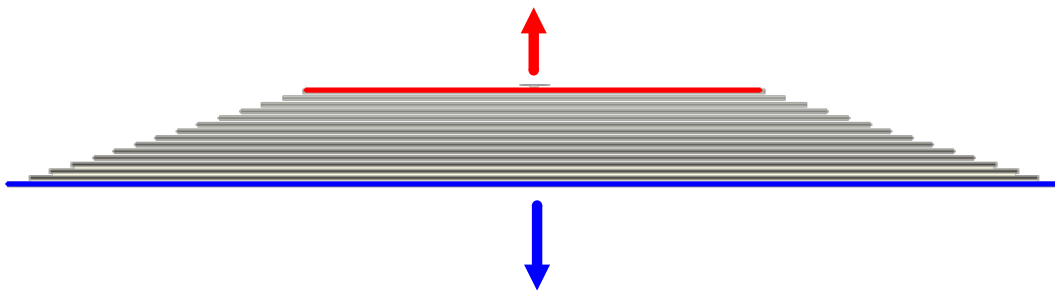


What would this look like if we spread out the layers?



How can we use the lengths of the two bases?

Length of the top layer is the circumference of the inner core.



Length of the bottom layer is the circumference of the entire roll.

How long is this roll?





...or this roll..



...or these rolls?



Big Idea:



How can we use what we have done to create a formula for roll length?

How can we use what we have done to create a formula for roll length?

What Information did we need?



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