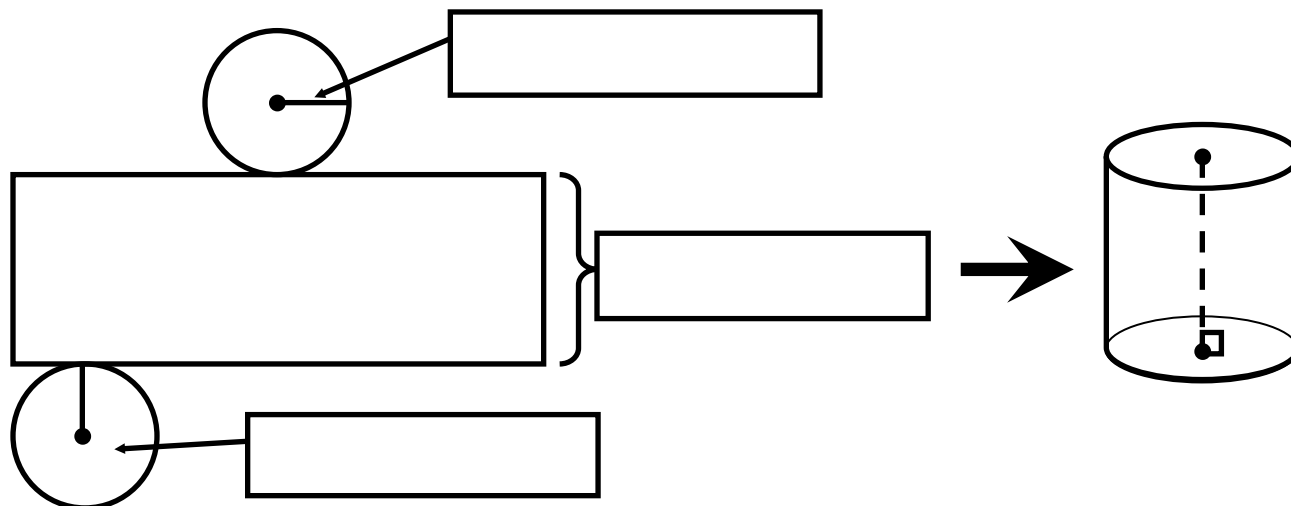


TOPIC 16-5: SURFACE AREA & VOLUME OF CYLINDERS

The figure below is a net for a right cylinder:



Recall that **LATERAL AREA** measures the area of everything EXCEPT

_____.



TOTAL AREA INCLUDES _____.

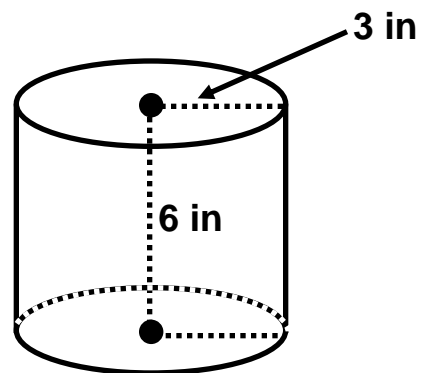


VOLUME measures the number of _____ units in the _____ of a 3-dimensional object.



Since the base of a cylinder is a _____, $B =$ _____.

EXAMPLE 1: For the cylinder below, find the EXACT Lateral Area, Total Area, and Volume.

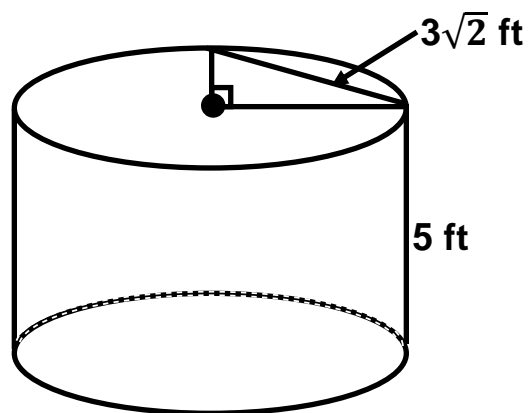


LA = _____

TA = _____

V = _____

EXAMPLE 2: For the cylinder below, find Lateral Area, Total Area, and Volume. Round your answers to the nearest tenth.

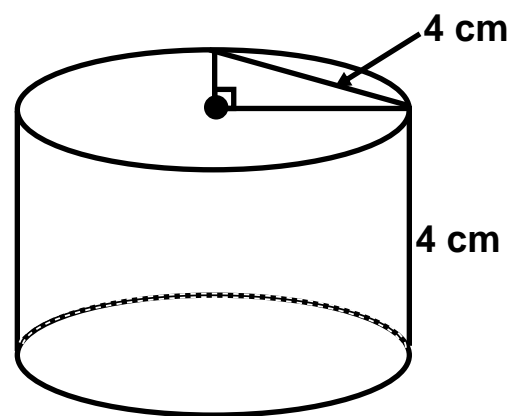


LA = _____

TA = _____

V = _____

EXAMPLE 3: For the cylinder below, find the EXACT Lateral Area, Total Area, and Volume.



$$LA = \underline{\hspace{2cm}}$$

$$TA = \underline{\hspace{2cm}}$$

$$V = \underline{\hspace{2cm}}$$

EXAMPLE 4: The Volume of a cylinder is $81\pi \text{ in}^3$. If the radius is 3 in, find the height.

$$h = \underline{\hspace{2cm}}$$

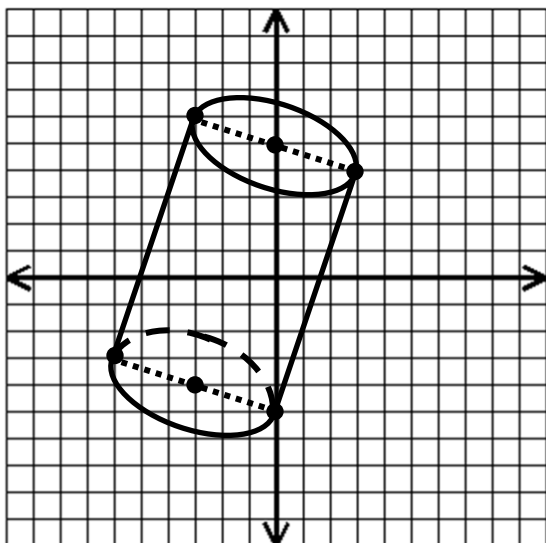
EXAMPLE 5: The Total Area of a cylinder is $144\pi \text{ m}^2$. If the radius is 6m, find the height.

$$h = \underline{\hspace{2cm}}$$

EXAMPLE 6: The Total Area of a cylinder is $144\pi \text{ m}^2$. If the radius is 6m, find the height.

$h =$ _____

EXAMPLE 7: Given the cylinder graphed on the coordinate plane, find the following.



A) The EXACT Lateral Area:

B) The Total Area rounded to the nearest tenth:

C) The EXACT Volume:

D) Write the equation of the line containing the height that goes through the centers of the bases.