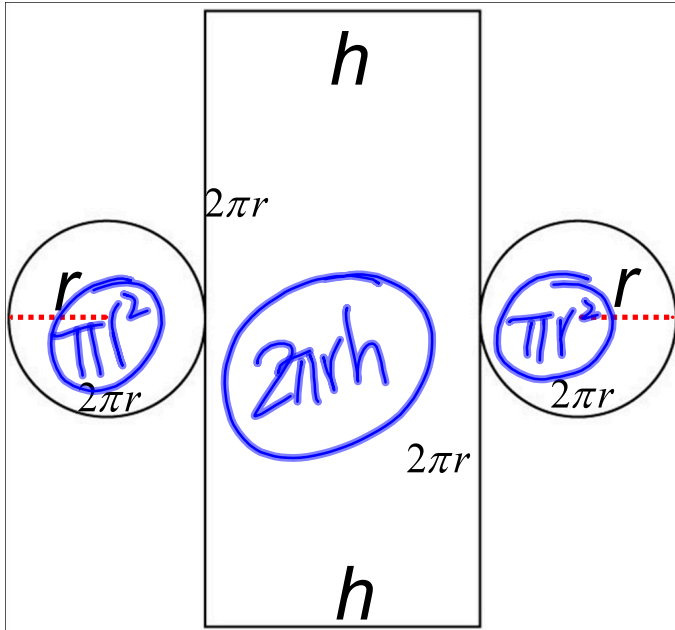
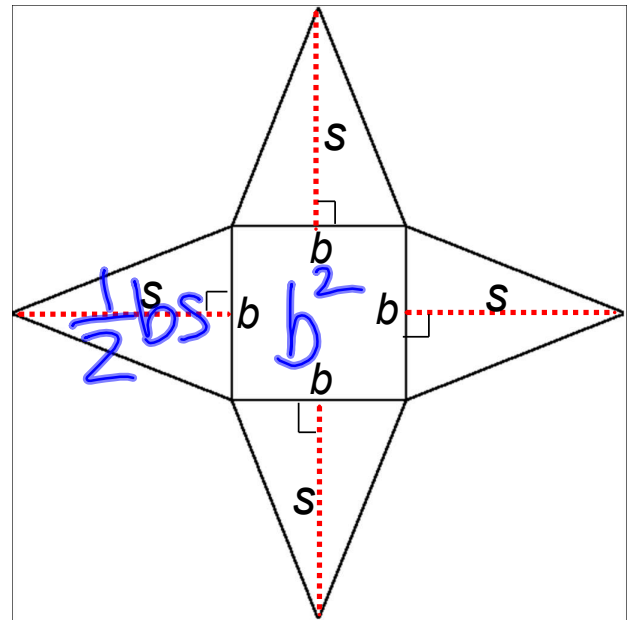


Do-now: Take out sheet and nets from yesterday.



$$2\pi r^2 + 2\pi r h$$



$$2bs + b^2$$

The diagram illustrates the geometry of a cylinder. At the top, a sector of a circle with radius L and central angle $2\pi r/L$ is shown. The arc length of this sector is labeled $2\pi r$. Below it, a circle with radius r and circumference $2\pi r$ is shown. A red arrow points from the arc of the sector to the circumference of the circle. The area of the sector is circled in red and labeled $\pi r L$. The area of the circular base is circled in blue and labeled πr^2 . A red arrow points from the base area to the formula $\pi r L + \pi r^2$.

Below the diagram, the following handwritten formulas are present:

- $(\frac{2\pi r}{2\pi L}) \pi L^2$ (with a red slash through the fraction)
- $(\frac{r}{L}) \pi L^2$
- $\pi r L$ (circled in red)

To the right, a net of the cylinder is shown, consisting of a rectangle and two circles. The rectangle has width w and height h . The circles have radius r and circumference $2\pi r$. The net is labeled with w , h , l , and w . A red arrow points from the net to the formula $2lw + 2wh + 2lh$.

What is volume?

how much space
something takes up.

$$V = Bh$$



area of
base

$$\text{rect. prism} = V = lwh$$

$$\text{cylinder} = V = \pi r^2 h$$

$$\text{Cone} = V = \frac{1}{3} \pi r^2 h$$

$$\text{Sq. pyramid} = V = \frac{1}{3} b^2 h$$