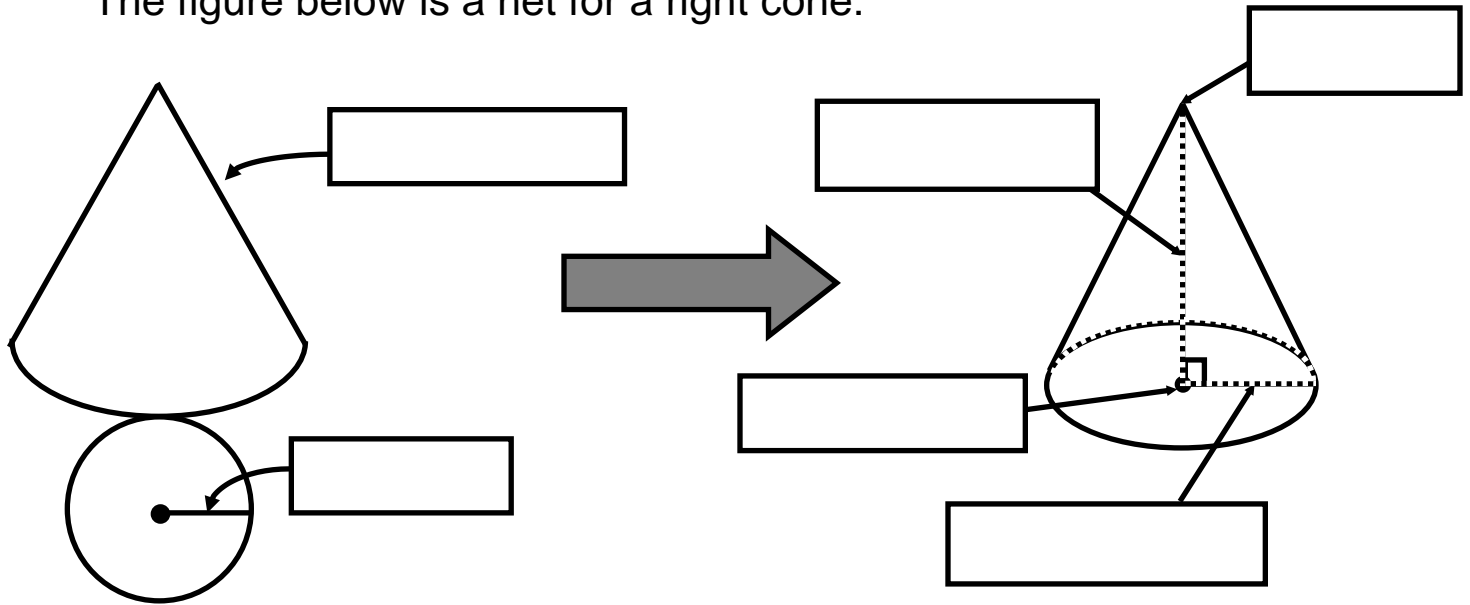


TOPIC 14-3: SURFACE AREA & VOLUME OF CONES

The figure below is a net for a right cone:



You can find the formulas for Area and Volume of cones on your STAAR Mathematics Chart.

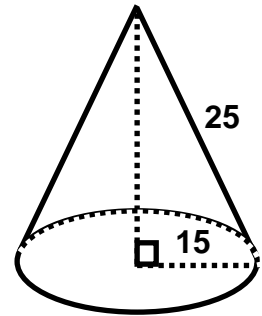
The Lateral Area of a cone measures the area of the _____ surface.

The Total Area is the sum of the Lateral Area and the area of the _____.

The Volume measures the amount of space enclosed in the _____ of a 3-dimensional object.

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

EXAMPLE 1: For the cone below, find the EXACT Lateral Area, Total Area, and Volume. (List Parts first!)

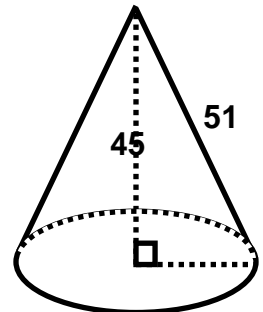


Lateral Area = _____

Total Area = _____

Volume = _____

EXAMPLE 2: For the cone below, find the EXACT Lateral Area, Total Area, and Volume.



Lateral Area = _____

Total Area = _____

Volume = _____

EXAMPLE 3: If the volume of a cone is $12\pi \text{ ft}^3$ and the radius is 3 ft. Find the height, slant height, Lateral Area, and Total Area, rounding to the nearest tenth as necessary.

Height = _____

Slant Height = _____

Lateral Area = _____

Total Area = _____

EXAMPLE 4: Cone A has a radius of 9 and a height of 12. Cone B has a radius of 12 and a height of 9. Fill in the blanks below.

Cone _____ has a greater Volume

Cone _____ has a greater Lateral Area