# tsporing Greatioses <br> Math Virtual Learning 

## Geometry

## April 23, 2020

## Geometry <br> Lesson: April 23, 2020

## Objective/Learning Target: <br> Calculate the surface area of cones

Bell Ringer: Find the surface area of the pyramid.


## Bell Ringer Answer: 105 square centimeters

Let's Get Started: Go through the following slides and try the example problems.

## DEFINITIONS:

Cone: Solid with one circular base.

Surface Area: Sum of the area of each face of the solid.

## Surface Area of a Cone:

$$
\mathrm{SA}=\pi \mathrm{r}^{2}+\pi \mathrm{r} \ell
$$

$$
\boldsymbol{\pi}=\mathrm{pi}
$$

$r$ = radius of the base
$\ell=$ slant height


Example Problem: Find the surface area of the cone.
$\mathrm{SA}=\pi \mathrm{r}^{2}+\pi \mathrm{rl}$
$\mathrm{SA}=\pi(7)^{2}+\pi(7)(15)$
$S A=49 \pi+105 \pi$
$S A=154 \pi$ square inches


$$
\begin{aligned}
& r=\text { radius of the base } \\
& r=7 \text { inches }
\end{aligned}
$$

$\ell=15$ inches

Try the next practice problems on your own! Find the surface area of each cone.

1) 7 m

2) 


4)


Answer Key:
Here you will find the answers to the previous four questions. Check your answers below.

1) $224 \pi$ square meters
2) $144 \pi$ square meters
3) $44 \pi$ square inches
4) $216 \pi$ square feet

## Additional Resources:

Click on the link below to get additional practice and to check your understanding!

## Surface Area of Cones Practice

