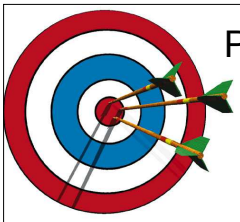
Unit 1-15

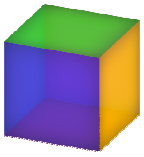


Pythagorean Theorem & 3D figures

Today's Learning Targets:

1.15 I can use the Pythagorean Theorem to calculate unknown dimensions in 3D figures.

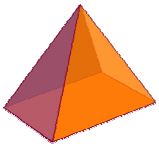
CUBE



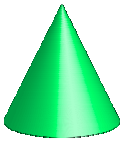
RECTANGULAR PRISM

Link to interactive 3D shapes

PYRAMID

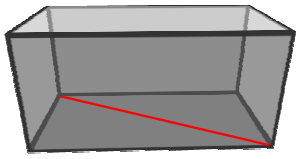


CONE



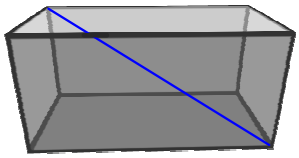
CYLINDER

If the width of this rectangular prism is 6 inches, the length is 8 inches. How could we find the length of the diagonal on the bottom surface of the prism?



Unit 1-15

If the width of a rectangular prism is 12, the height is 8, and the length is 9. How could we find the length of the diagonal of the entire prism?

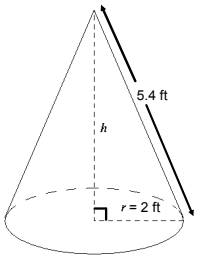


Ben has a suitcase, this inside of which is shaped like a rectangular prism with a length of 16 inches, a width of 12 inches, and a height of 7 inches. He want to bring his largest umbrella, which is 21 inches in length, with him on a trip. Can he fit that umbrella in the suitcase?

Step 1

Step 2

How could we find the height of this cone?



Unit 1-15

A given cone has a radius of 3 inches and a height of 7 inches.

What is the length of the diagonal?