Flash Cards: Drawing and Labeling the Sides of Pyramids and Cones

Directions: For each three-dimensional figure, draw the 'net' or the surfaces of the figure when they are laid out flat. Label all dimensions.

1. Draw and label the surfaces that make up this figure. A pyramid with a square base. The base measures 10 inches by 10 inches, the height of the pyramid is 7.8 inches, and the slant height of the pyramid is 11 inches.

2. Draw and label the surfaces that make up this figure. A pyramid with a square base. The base measures 15 inches by 15 inches, the height of the pyramid is 10 inches, and the slant height of the pyramid is not given.

3. Draw and label the surfaces that make up this figure. A cone with radius 20 feet and height of 30 feet.

4. Draw and label the surfaces that make up a cone with height 18 centimeters and slant height 19.5 centimeters.

Answers:

1. A square with dimensions 10 inches by 10 inches and four triangles with base 10 inches and height 11 inches.

2. One-half of 15 equals 7.5.

$7.5^2 + 10^2 = l^2$
$156.25 = l^2$
$12.5 = l$
A square with dimensions 15 inches by 15 inches and four triangles with base 15 inches and height 12.5 inches.

3. Find the slant height.

$20^2 + 30^2 = l^2$
$1300 = l^2$
$36.06 \approx l$
A circle with radius 20 feet and a sector of a circle with radius 36.06 feet.

4. Find the radius of the circle.

$18^2 + r^2 = 19.5^2$
$324 + r^2 = 380.25$
$r^2 = 56.25$
$r = 7.5$
A circle with radius 7.5 centimeters and a sector of a circle with radius 19.5 centimeters.