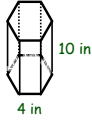## Lesson 11.5 Warm Up (Clickers)

1. What is the surface area and volume of the prism below?
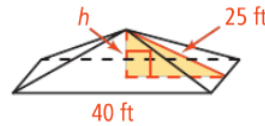
10 in

4 in

2. What is the surface area for a cylinder that has a radius of 7 ft and a diameter of 3 ft?

1 What is the volume of a square pyramid with base edges 24 m and slant height 13 m?

Lesson 11.5 Volumes of Pyramids & Cones

Volume of a Pyramid: $V = 1/3Bh$ where B is the area of the base and h is the height

Ex. What is the volume in cubic feet of a square pyramid with base edges 40 ft and slant height 25 ft?

h   25 ft

40 ft

2 A sports arena shaped like a pyramid has a base area of about 300,000 sq. ft. and a height of 321 ft. What is the approximate volume of the arena?

Volume of a Cone: $V = 1/3\pi r^2 h$ where r is radius and h is height

The covering on a tepee rests on poles that come together like concurrent lines. The resulting structure approximates a cone. If the tepee pictured is 12 ft high with a base diameter of 14 ft, what is its approximate volume?

3 The height and radius of a child's tepee are half of the original tepee-- 6 ft and and 7 ft respectively. What is the volume of the child's tepee to the nearest cubic foot?

4 What is the relationship between the volume of the
   original tepee and the child's tepee?

5 What is the volume of the oblique cone below? Round
   to the nearest foot.

25 ft

30 ft