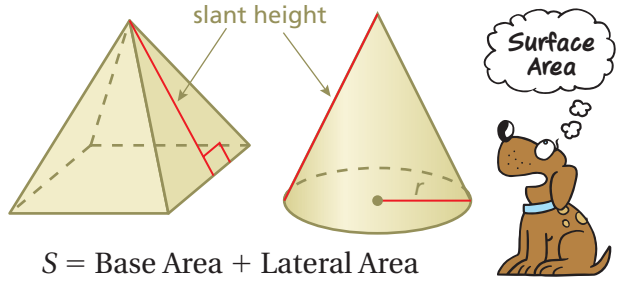
REVIEW: Surface Areas of Pyramids and Cones

Name _____

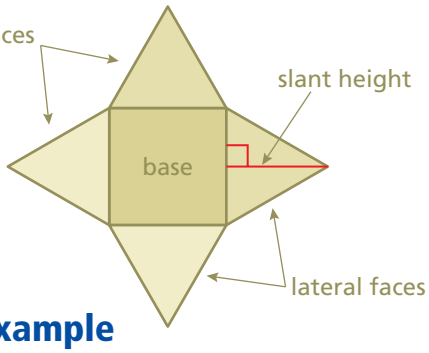
Key Concept and Vocabulary



S = Base Area + Lateral Area

Visual Model

Net for a Square Pyramid



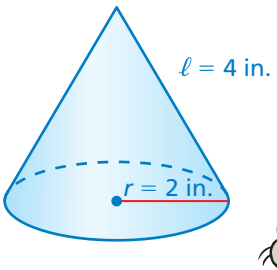
Skill Example

1. Cone

$S = \pi r^2 + \pi r \ell$

$= \pi \cdot 2^2 + \pi \cdot 2 \cdot 4$

$= 12\pi$ in.^{2}

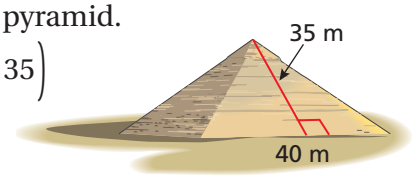


Application Example

2. Find the lateral surface area of the square pyramid.

$S = 4\left(\frac{1}{2} \cdot 40 \cdot 35\right)$

$= 2800$ m^2



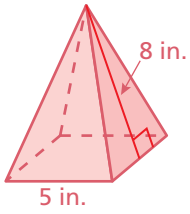
∴ The area is 2800 square meters.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

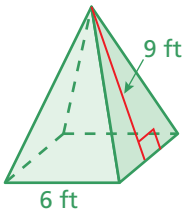
Find the surface area of the pyramid or cone.

3. Square Pyramid



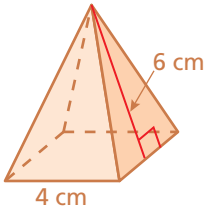
$S =$ 105 in.^{2}

4. Square Pyramid



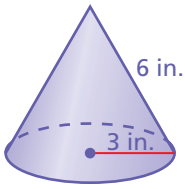
$S =$ 144 ft^2

5. Square Pyramid



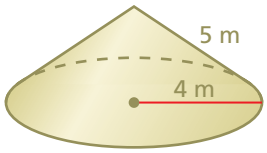
$S =$ 64 cm^2

6. Cone



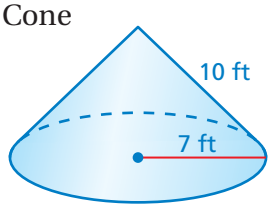
$S =$ 27π in.^{2}

7. Cone



$S =$ 36π m^2

8. Cone



$S =$ 119π ft^2

9. **VOLCANO** Find the lateral surface area of the volcano. Use 3.14 for π. Round your answer to the nearest hundred square feet. 10,990,000 ft^2

10. **VOLCANO** Find the area of the circular region covered by the base of the volcano. Use 3.14 for π. Round your answer to the nearest hundred square feet. 9,616,300 ft^2