Determine Surface Area of Pyramids

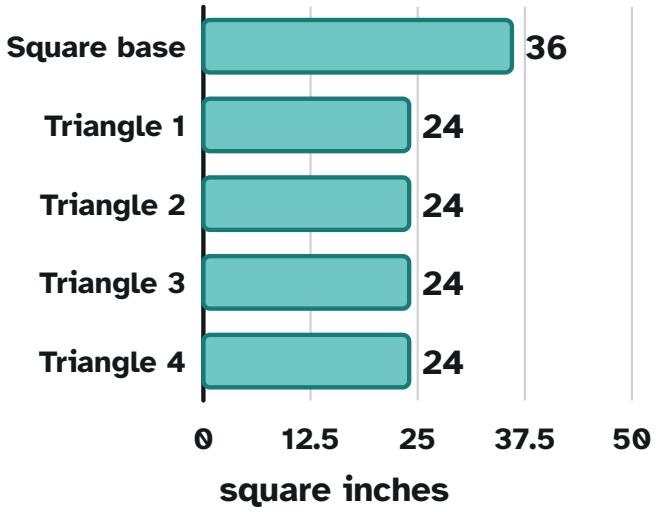
Find the surface area of a pyramid by adding the base and all the triangle faces.

Name _____ **Date** _____

Tonight's spark

A museum shop sells a pyramid-shaped gift box. The square bottom is 6 inches on each side. Each triangle side has a slant height of 8 inches. How much paper wraps the whole box?

Guess first: is it more than 100 square inches, or less?



Our class model: base plus triangle sides

Try it

Work it out on paper. Write one answer on each line.

1. **How many triangular faces does a square pyramid have?**

   A. 2 **B.** 3 **C.** 4 **D.** 5

   My answer _____

2. **A triangular face of a pyramid has a base of 6 and a slant height of 5. What is its area?**

   A. 15 square units **B.** 30 square units **C.** 11 square units

   My answer _____

3 **A pyramid has four triangle faces of 10 square units each and a base of 16 square units. What is its surface area?**

A. 26 square units **B.** 40 square units **C.** 160 square units **D.** 56 square units

My answer _____

4 **The surface area of a pyramid is the base area plus what?**

A. The volume **B.** The area of all the triangle faces **C.** The slant height

D. The number of edges

My answer _____

5 **A square pyramid has a base edge of 6 and a slant height of 4. What is the total area of its four triangle faces?**

A. 12 square units **B.** 24 square units **C.** 48 square units **D.** 96 square units

My answer _____

Talk about it

Does the pyramid have a face on the bottom too?

Home mission

Fold a paper pyramid: draw a square and a triangle on each side of it. Count the faces. Ask: is the square part of the outside? Would you wrap it?

If we get stuck, ask

- What is the base area? Let's find it first.
- How many triangle sides are there? Did we add the base too?
- Which number is the slant height for the triangles?

Do it on a screen

Scan or type the link. Same lesson, with hints.

eduwonderlab.com/lessons/5-8/homework.html

How did it feel? (optional)

Tricky Getting there Got it