2.1 Surface Area – Part 1

Warm-Up

Write the formula of the area of the shapes.

Rectangle | Square | Triangle | Hexagon

Main Topic Surface Area of Prisms

Prism

A **prism** is a three-dimensional shape with congruent and parallel faces, referred to as bases, connected by parallelogram faces.

It's a Wrap

Materials:

Graph paper, scissors, scotch tape

Instructions:

- Wrap the prism with graphing paper.
- Label faces 1 through 6.
- Label each face with the number of squares on it.
- Cut the edges of the wrapper in such a way that all faces lay flat, but one face must be connected with another face.

Fill out the table with the number of squares on the faces.

Face 1	Face 2	Face 3
Face 4	Face 5	Face 6

TASK 1

- Construct a rectangular prism with sides 5 units, 3 units and 4 units.
- Construct the net of the prism and label each side of the shapes.
- Identify the shapes in the net that are congruent.

Fill out the table with face areas.

	Face 1	Face 2	Face 3	Face 4	Face 5	Face 6
Area						
Surface Area						
Surface Area Formula						

Quick Math

Find the surface area of a rectangular prism with sides 9 in, 12 in, and 10 in.

Find the surface area of a rectangular prism with sides 13 cm, 30 cm, and 15 cm.

Need Help?

Main Topic Surface Area of Pyramids

Pyramid

A **pyramid** is a three-dimensional shape with polygonal base and triangular sides that meet at a single point (apex).

TASK 2

- Construct a rectangular pyramid whose base measures 8 units and 5 units with slant height that measures 10 units.
- Construct the net of the pyramid and label each side of the shapes.
- Identify the shapes in the net that are congruent.

Fill out the table with face areas.

	Base	Face 1	Face 2	Face 3	Face 4
Area					
Surface Area					
Surface Area Formula					

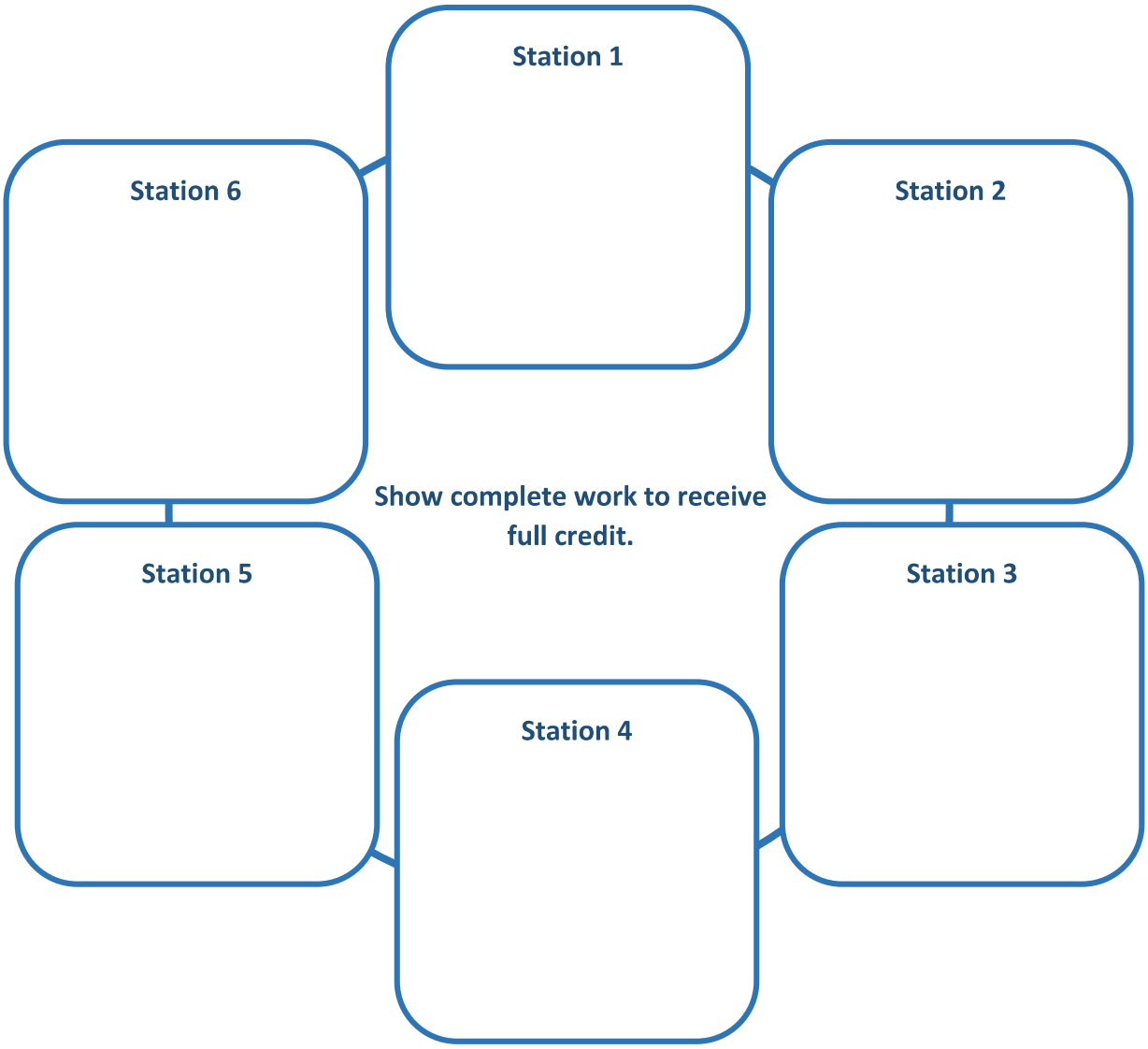
Find the surface area of the shapes.

Square Pyramid	**Regular Hexagonal Pyramid**
Each side of the base measures 7 in and the slant height measures 12 in.	Each side of the base measures 5 cm and the slant height measures 8 cm.

Need Help?

Surface Area Stations

Solve the questions in each station with a partner.



End-of-Course Prep