Apprenticeship Math 12
Surface Area Test Prep

Name: _____

Date: _____

1. Match the following terms with the correct definition:

    _____ perimeter
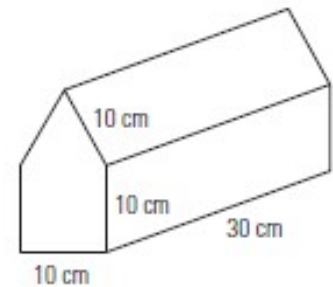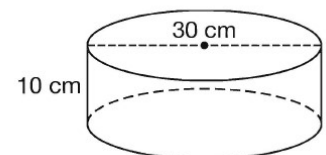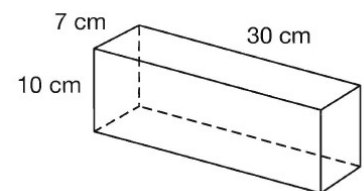
    _____ area

    _____ net

    _____ surface area

    A. the space occupied by a flat (2-dimensional shape)

    B. a 2-dimensional pattern that you could cut and fold to make a model of a 3-dimensional shape

    C. the sum of all the areas of all the faces of a 3-dimensional shape

    D. the distance around a two-dimensional shape
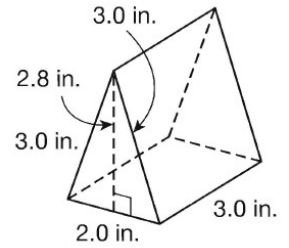
2. Sketch a net of the object shown. Label the dimensions.

3. Which block of cheese has more surface area to wrap: the rectangular prism or the cylinder? By how much, to the nearest square centimere?

4. Calculate the surface area of the triangular prism.

3.0 in.

2.8 in.

3.0 in.

3.0 in.

2.0 in.

5. A sphere has a diameter of 12 cm. What is the sphere's surface area, rounded to the nearest hundredth?
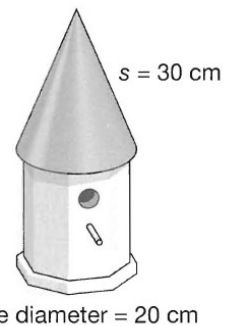
6. Melissa is making a bird feeder with a metal roof.

   Melissa made an error when she calculated the area of metal needed for the roof. Circle the error and correct her solution.

   SA(roof) is the lateral area of cone

   $SA = \pi rs$

   $= \pi(20 \text{ cm})(30 \text{ cm})$

   $= 1884.955... \text{ cm}^2$

   I will need about 1880 cm² of metal for the roof.

   $s = 30$ cm

   base diameter = 20 cm

7. Calculate the surface area of the figure shown.
   The height to the peak is 15 ft.

   22 ft

   9 ft

   22 ft