WS – Fun with Lateral Area and Surface Area ☺

Name _____
Date _____ Pd _____

Solve each of the following problems. Be sure to show all work (including substitutions) because you will need to do so on the test to review full credit.

1. Find the length of a lateral edge of a cube if the surface area is 96 ft^2.

2. The height a square-based right prism is four times the length of the base and the surface area of the prism is 450 cm^2. Find the dimensions of the prism.

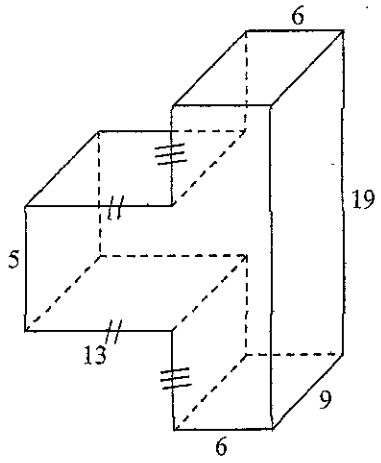
3. The radius of the base of a cone is 12 m and height is 9 m. Find the lateral area and surface area of the cone.

4. A pyramid has a rectangular base that is 14 cm x 16 cm. The lateral edges are congruent and have a length of 10 cm. Find the surface area of the pyramid.

5. A cylinder and a cone have congruent bases with radius of 10 m. Both have a height of 24 m. What is the difference in their total areas?

6. The total area of a right cone is 200π ft^2 and the slant height is 17 ft. Find the radius of the base.

7. Find the lateral area of this right prism.



8. Find the surface area of the problem 7's prism.

Answers to Fun with Lateral Area and Surface Area

1. 4 feet
2. length and width are 5 cm.; height is 20 cm.
3. LA = 180π, SA = 324π
4. SA = $320 + 14\sqrt{51}$ cm^2
5. 320π m^2
6. 8 feet
7. 684 sq. units
8. 1042 sq. units