Name:

Date:

School:

Facilitator:

11.03 Pyramids and Cones

Total points: 30

Find the surface area of each regular pyramid. Don’t forget your units in your answers! It may be necessary to use the Pythagorean Theorem to find the slant height, *l*.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **The given figure shows a right rectangular pyramid. The base is a square with side length of 4 meters. The slant height of the pryamid is 6 meters.** |  | **The given figure shows a right rectangular pyramid. The base is a square with side length of 22 centimeters. The height of the pryamid is 18 centimeters.** |  | The given figure shows a right rectangular pyramid. The base is a square with side length of 6 centimeters. The slant height of the pryamid is 9 centimeters. |
| 1. SA =      |  | 2. SA =      |  | 3. SA =      |

Find the surface area of each cone. Don’t forget your units in your answers! It may be necessary to use the Pythagorean Theorem to find the slant height, *l*.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **The given figure shows a right cone with a radius of 8 meters and a slant height of 15 meters.** |  | **The given figure shows a right cone with a diameter of 14 feet and a height of 11 feet.** |  | **The given figure shows a right cone with a radius of 10 centimeters and a height of 25 centimeters.** |
| 4.SA =      |  | 5.SA =      |  | 6.SA =      |

7. A regular pyramid has a height of 8 inches. Its base is an equilateral triangle with a side length of 12 inches. Find the surface area of the pyramid. Show all your work.

*Hint:* Use $A = \frac{1 }{4}s²\sqrt{3}$ to find the area of the base.

SA =

Show your work below.

8. A right cone has a radius of 3 feet and a height of 9 feet. Find its surface area. Show all your work.

*Hint:* You will need to use the Pythagorean Theorem to find the slant height, *l*.

SA =

Show your work below.