Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

Mastery Quiz Unit 12

**1.)** Find the total surface area of this prism.

5

3

7

**2.)** Find the total surface area of a rectangular prism with length 8, width 10, and height 5

**3.)** Find the surface area of a cube that has side length 3.2

**4.)** Find the volume of this prism

15

4

6

**5.)** Calculate the volume of a rectangular prism with length 10, width 6, and height 5.

**16.)** Find the total surface area of this regular pyramid

*l* = 8

5

**17.)** Find the total surface area of a square based pyramid with base edge of 10 and a slant height of 26.

**18.)** Find the lateral area of the square based pyramid that has base edge 8 and a slant height 14.

20

*h* = 8

**19.)** Find the volume of this square based pyramid.

**20.)** Find the volume of the square based pyramid that has base edge 5 and height 4.

7

*r* = 2

**21.)** Find the total surface area of the cylinder shown

**22.)** Find the total surface area of a cylinder with height 18 and radius 3.

**23.)** Find the lateral area of a cylinder with radius 6 and height 4.

12

*r* = 9

**24.)** Find the volume of the cylinder shown.

**25.)** Find the volume of a cylinder with radius 4 and height 6.

**26.)** Find the lateral area of a cone that has slant height 14 and radius 7.

**27.)** Find the total surface area of the given cone.

*l* = 14

*r* = 10

**28.)** Find thetotal surface area of acone that has radius 5 and sland height 10.

**29.)** Find the volume of the given cone.

*h* = 21

*r* = 11

**30.)** Find the volume of a cone that has radius 5 and height 7.

*r* = 5

**31.)** Find the surface area of the given sphere

**32.)** Find the surface area of a sphere that has diameter 8

**33.)** If a sphere has surface area of 196 π, what is the radius?

*r* = 7

**34.)** Find the volume of the given sphere

**35.)** Find the volume of a sphere that has diameter 18.

**36.)** If the radius of a sphere is doubled, the surface area is multiplied by \_\_\_\_\_\_

**37.)** If the dimensions of a prism are multiplied by 3, the surface area is multiplied by \_\_\_\_\_

**38.)** The dimensions of a pyramid are multiplied by 4, how much is the volume multiplied by?

**39.)** If the volume of a cube is 64 times as big as another cube, the sides of the bigger cube are how

many times as big as the smaller cube?

**40.)** The volume of a cylinder is multiplied by \_\_ if the radius is tripled but the height stays the same