Name _____   Date _____ Time _____

Part A.

Complete each sentence with one of the following names of the geometric solids:

1. I have exactly one apex and a square base. I am a _____.

2. I have two triangular bases and three rectangular faces. I am a _____.

3. I have one apex and one curved surface. I am a _____.

4. All of my bases and faces are the same shape and I have eight vertices. I am a _____.

7 in.
10 in.
5 in.
Box A

5 in.
12 in.
3 in.
Box B

13 in.
Box C
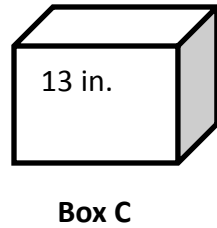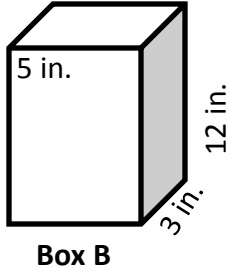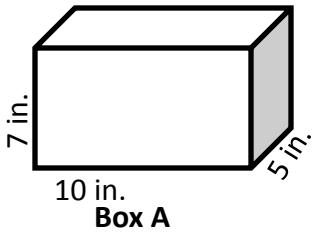
5. Which of the boxes above has the greatest volume? _____
Explain how you got your answer.

_____

_____

_____

_____

_____

6. The rectangular prism has a volume of 160 cubic feet. What is the area of the base? _____
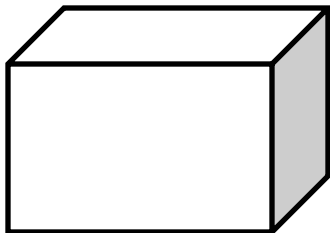
Height = 5 in.

Area = 5 in.

Area of a rectangle: $A = l * w$ **Circumference of a circle:** $C = \pi * d$

Volume of a rectangular prism: $V = l * w * h$ **Area of a circle:** $A = \pi * r^2$

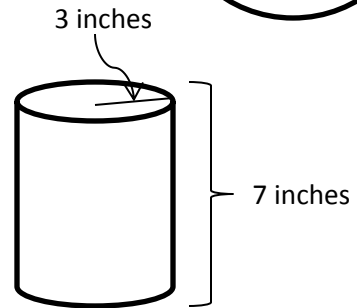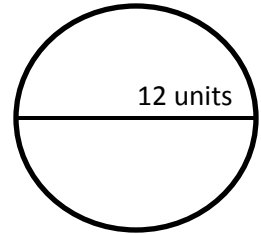**Volume of a cylinder:** $V = \pi * r^2 * h$

1. What is the radius of the circle? _____

2. What is the diameter of the circle? _____

3. What is the circumference? _____

4. What is the area of the base of the cylinder? _____   3 inches
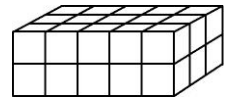
5. What is the volume of the cylinder? _____

The prism to the right is made up of centimeter cubes.

6. What is the area of the base of the prism? _____

7. What is the height of the prism? _____

8. What is the volume of the prism? _____

9. If you kept the base the same, but doubled the volume of this prism, what would the height be?

_____

10. Write the number sentence to show how you solved Problem 9. _____

12 units

7 inches

11. What is the surface area of the prism? _____

12. Explain how you found the surface area.

_____

_____

_____

_____

13. What information do you need to figure out how many square inches of wrapping paper you would use if you wrapped the entire cylinder on the previous page (top, bottom, and sides)?

_____

_____

14. The pyramid to the right has the same height as the prism on the previous page.

What is the volume of the pyramid? _____

Write a number sentence to show how you found your answer. _____
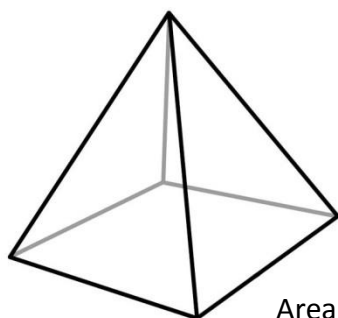
Area of base = 32 in²

15. Lisa's fish are sick, and she needs to add medicine to the tank. The instructions suggest adding one

drop of medicine for every 3 L of water. The base of the fish tank measures 50 cm by 30 cm. The tank is

filled with water to the height of about 15 cm.

*Reminder: 1 L = 1,000 cm³

15 cm

30 cm

50 cm
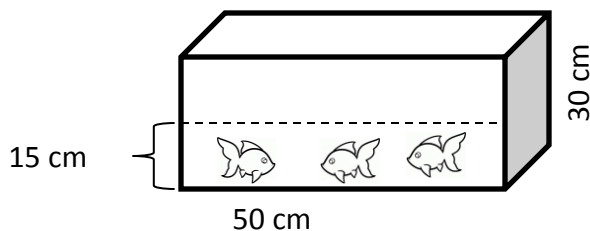
How many drops of medicine should Lisa add to her tank? _____

Explain what you did to find the answer. _____

_____

_____