

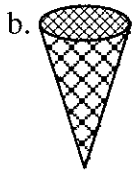
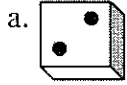
Everyday Mathematics

Grade 4

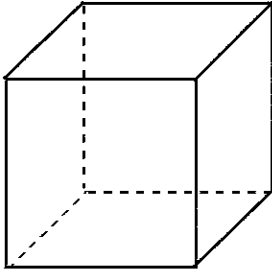
Unit 11

Name: _____

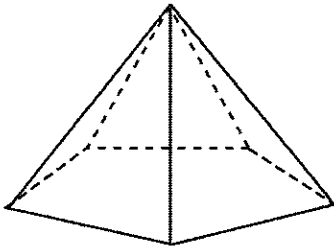
1. Each object below has the shape of a geometric solid. Write the name of each geometric solid.



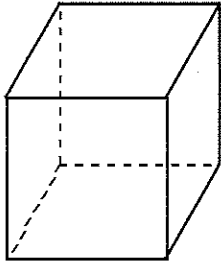
2. How many faces does the cube have?



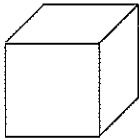
3. Mark Xs on the vertices of the pentagonal pyramid.



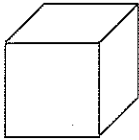
4. How many edges does the cube have?



5. Write the name of the shape of the base of the geometric solid given below.

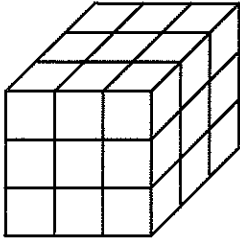


6. Describe the vertices, edges, faces, and bases of the geometric solid below.

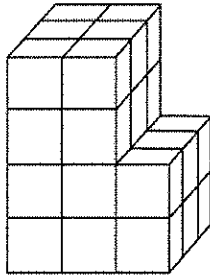


7. Find the volume of each stack of centimeter cubes.

a. Volume = _____ cm^3



b. Volume = _____ cm^3



8. Choose the best estimate for the mass of the object.

Would a horse have mass of about 300 kilograms or 300 grams?

9. Choose the most reasonable estimate for the following objects:

a. a glass of water

b. a comb

c. a lion

[A] a. 0.1 oz

b. 500 g

c. 3 kg

[B] a. 10 oz

b. 50 g

c. 300 kg

[C] a. 100 oz

b. 0.5 g

c. 30 kg

10. There are 5 blue, 1 green, and 4 red marbles in a bag. Choose one of the probability terms listed below to describe the likelihood of each event.

impossible certain very unlikely likely

Without looking:

- a. a green marble will be pulled from the bag. _____
 - b. a blue marble will be pulled from the bag. _____
 - c. a marble will be pulled from the bag. _____
 - d. an orange marble will be pulled from the bag. _____
-

11. There are 20 red, 5 blue, and 2 black balls in a bag. Choose one of the probability terms listed below to describe the likelihood of each event.

impossible certain very unlikely likely

Without looking:

- a. a blue ball will be pulled from the bag. _____
- b. a white ball will be pulled from the bag. _____
- c. a red ball will be pulled from the bag. _____
- d. a ball will be pulled from the bag. _____

12. There are 3 red, 1 green, and 15 blue blocks in a bag. Choose one of the probability terms listed below to describe the likelihood of each event.

impossible certain very unlikely likely

Without looking:

- a. a blue block will be pulled from the bag. _____
 - b. a green block will be pulled from the bag. _____
 - c. a block will be pulled from the bag. _____
 - d. a yellow block will be pulled from the bag. _____
-

13. There are 3 red, 9 blue, and 16 white buttons in a box. Choose one of the probability terms listed below to describe the likelihood of each event.

impossible certain very unlikely likely

Without looking:

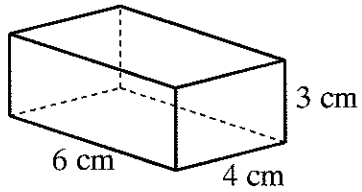
- a. a red button will be drawn from the box. _____
- b. a button will be drawn from the box. _____
- c. a black button will be drawn from the box. _____
- d. a white button will be drawn from the box. _____

14. Calculate the volume of each rectangular prism.

$$\text{Volume of rectangular prism} = \text{Area of base} \times \text{height}$$

$$V = B \times h$$

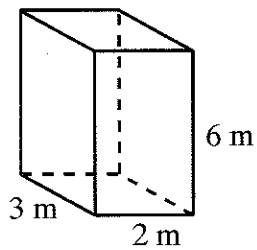
a.



$$\text{Volume} = \underline{\hspace{2cm}} \text{ cm}^3$$

Number model:

b.



$$\text{Volume} = \underline{\hspace{2cm}} \text{ cm}^3$$

Number model:

15. Add.

a. $17 + (-8) = \underline{\hspace{2cm}}$

b. $(-21) + 3 = \underline{\hspace{2cm}}$

c. $\underline{\hspace{2cm}} = -9 + (-18)$

d. $\underline{\hspace{2cm}} = 7 + (-7)$

16. Subtract.

a. $14 - (-8) = \underline{\hspace{2cm}}$

b. $-24 - (+9) = \underline{\hspace{2cm}}$

c. $\underline{\hspace{2cm}} = -2 - (-3)$

d. $\underline{\hspace{2cm}} = 13 - (-5)$

Multiply. Be sure to include the decimal point in your answer.

17. $6.2 * 26 = \underline{\hspace{2cm}}$

18. $\underline{\hspace{2cm}} = 0.89 * 65$

Divide. Be sure to include the decimal point in your answer.

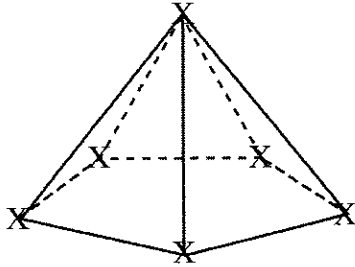
19. $\underline{\hspace{2cm}} = 38.4/3$

$\underline{\hspace{2cm}} = 38.4/3$

20. $\underline{\hspace{2cm}} = 6.39/9$

- a. cube
[1] b. cone _____

- [2] 6 faces _____



- [3] _____

- [4] 12 edges _____

- [5] square _____

- Sample answer: The number of vertices is 8, the shape of the base is square, the
[6] number of faces is 6, the number of edges is 12, and the two bases are congruent. _____

- a. Volume = 27 cm^3
[7] b. Volume = 30 cm^3 _____

- [8] About: 300 kilograms _____

- [9] [B] _____

- a. very unlikely
b. likely
c. certain
[10] d. impossible _____

a. very unlikely
b. impossible
c. likely
[11] d. certain

a. likely
b. very unlikely
c. certain
[12] d. impossible

a. very unlikely
b. certain
c. impossible
[13] d. likely

a. Volume = 72 cm^3
Number model: $4 \times 6 \times 3 = 72$
b. Volume = 36 m^3
[14] Number model: $2 \times 3 \times 6 = 36$

a. 9
b. -18
c. -27
[15] d. 0

a. 22
b. -33
c. 1
[16] d. 18

[17] 161.2

[18] 57.85

[19] 12.8

[20] 0.71

1. According to the Guinness World Records, the most snow that fell in a single snowstorm was 189 inches. This happened in Mount Shasta Ski Bowl, California, between February 13 and 19, 1959.

Hints: 1 cubic foot of freshly fallen snow weighs about 9.98 pounds. 1 ton equals 2,000 pounds.

Imagine that it snowed 189 inches in your classroom. About how many pounds would the snow weigh?

- a. List the information you need to solve the problem.
- b. Explain your plan for solving the problem.
- c. If 189 inches of snow fell in a classroom that is 27 feet long and 24 feet wide, about how many pounds would the snow weigh? Show all of your work.
- d. Would this much snow fit in your classroom? Why or why not?

Sample answer:

a. I need to know the length and width of my classroom, the height of the snow, and the average weight of snow.

b. I will find the area of the floor of my classroom in square feet, and then multiply by the height of the snow in feet to find the volume of the snow. Then I will multiply by the weight of 1 cubic foot of snow to find the total weight of the snow.

c. 189 inches is equal to 15.75 feet, so the volume of the snow in cubic feet is
 $27 \text{ feet} \times 24 \text{ feet} \times 15.75 \text{ feet} = 10,206 \text{ cubic feet}$. Since snow weighs 9.98 pounds per cubic foot, the snow in the classroom would weigh about 101,856 pounds, or about 51 tons.

d. No. 189 inches is almost 16 feet, and the ceilings in my classroom are only about 10 feet
[1] high.
