

Unit 11 PC Form A

1. Add.

$$-4 + 7 = \underline{\hspace{2cm}}$$

ANSWER: 3

2. Add.

$$-8 + (-5) = \underline{\hspace{2cm}}$$

ANSWER: -13

3.  Use pencil and paper to answer the question.

Add.

a. $-6 + 13 = \underline{\hspace{2cm}}$

b. $-6 + (-10) = \underline{\hspace{2cm}}$

c. $\underline{\hspace{2cm}} = 4 + (-14)$

d. $\underline{\hspace{2cm}} = -20 + 4$

ANSWER:

a. 7

b. -16

c. -10

d. -16

4.  Use pencil and paper to answer the question.

Add.

a. $\underline{\hspace{2cm}} = 16 + (-8)$

b. $(-17) + 11 = \underline{\hspace{2cm}}$

c. $\underline{\hspace{2cm}} = -14 + (-9)$

d. $15 + (-15) = \underline{\hspace{2cm}}$

ANSWER:

a. 8

b. -6

c. -23

d. 0

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5. The object below has the shape of a geometric solid. Name the geometric solid.



- a. sphere
- b. cone
- c. cylinder
- d. rectangular prism

ANSWER: c

6.  Use pencil and paper to answer the question.

Each object below has the shape of a geometric solid. Name the geometric solid.

a.



b.



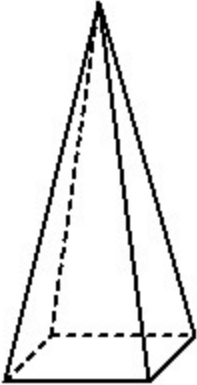
ANSWER:

a. cube

b. sphere

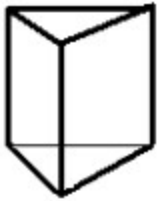
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7. How many faces does the square pyramid have?
_____ faces



ANSWER: 5

8. How many vertices does the triangular prism have?
_____ vertices



ANSWER: 6

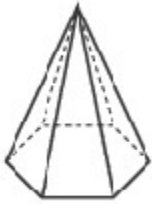
9. How many edges does the rectangular prism have?
_____ edges



ANSWER: 12

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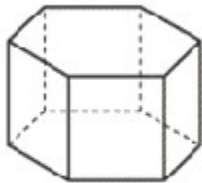
10. Name the shape of the base of the pyramid below.



ANSWER: hexagon

11.  Use pencil and paper to answer the question.

Describe the geometric solid below. Use the words *vertex*, *base*, *face*, *edge*, and *congruent* in your description.



ANSWER: Sample answer: This is a hexagonal prism with 12 vertices, 18 edges, and 8 faces. It has 6 rectangular faces and 2 congruent hexagonal bases.

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12. Find the volume of the stack of centimeter cubes.

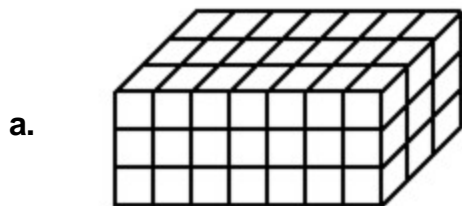


Volume = _____ cm^3

ANSWER: 36

13.  Use pencil and paper to answer the question.

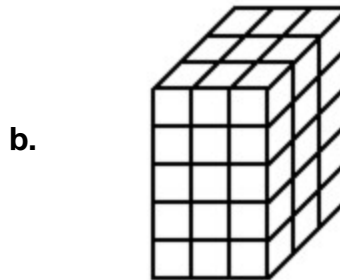
Find the volume of each stack of centimeter cubes.



Volume = _____ cm^3

ANSWER:

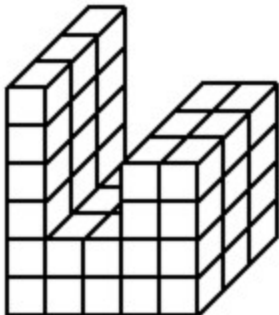
a. 63



Volume = _____ cm^3

b. 45

14. Find the volume of the stack of centimeter cubes.



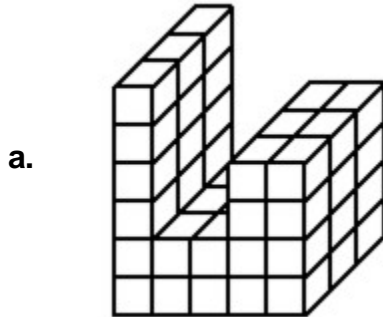
Volume = _____ cm^3

ANSWER: 54

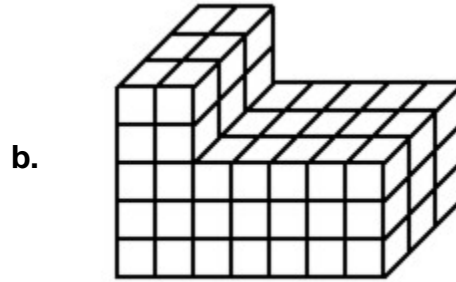
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15.  Use pencil and paper to answer the question.

Find the volume of the stack of centimeter cubes.



Volume = _____ cm^3



Volume = _____ cm^3

ANSWER:

a. 54

b. 75

16. Choose the most reasonable estimate for the weight.

A box of rice might weigh about

- a. 16 oz b. 160 oz c. 1,600 oz

ANSWER: a

17.  Use pencil and paper to answer the question.

Circle the most reasonable estimate for the weight.

- | | | | |
|------------------------------------|---------|--------|-------|
| a. A box of rice might weigh about | 0.16 oz | 1.6 oz | 16 oz |
| b. A marker might weigh about | 5 g | 50 g | 500 g |
| c. A paper clip might weigh about | 0.1 g | 1 g | 10 g |

ANSWER:

a. 16 oz

b. 5 g

c. 1 g

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18.  **Use pencil and paper to answer the question.**

There are 6 blue, 1 purple, and 3 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,

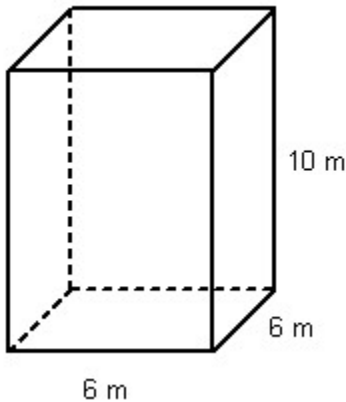
- a. a marble is pulled from the bag. _____
- b. a green marble is pulled from the bag. _____
- c. a blue marble is pulled from the bag. _____
- d. a purple marble is pulled from the bag. _____

ANSWER: a. certain
 b. impossible
 c. likely
 d. very unlikely

19.  **Use pencil and paper to answer the question.**

Calculate the volume of the rectangular prism.

Volume of a rectangular prism = area of base * height
 $V = B * h$



Number model: _____

Volume = _____ m^3

ANSWER: Number model: $6 * 6 * 10 = 360$
 Volume = $360 m^3$

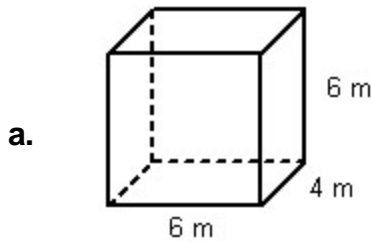
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20.  Use pencil and paper to answer the question.

Calculate the volume of each rectangular prism.

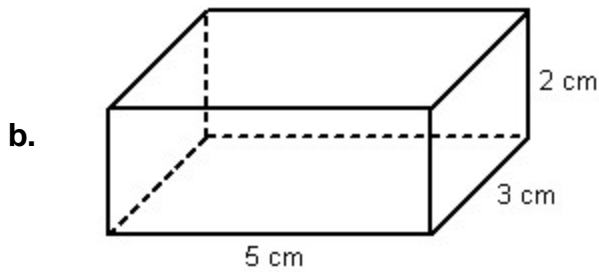
Volume of a rectangular prism = area of base * height

$$V = B * h$$



Number model:

Volume = _____ m³



Number model:

Volume = _____ cm³

ANSWER:

- a. Number model: $6 * 4 * 6 = 144$
 Volume = 144 m^3
- b. Number model: $5 * 3 * 2 = 30$
 Volume = 30 cm^3

21. Add.

_____ = $-5 + (-5)$

ANSWER: -10

22. Subtract.

$-11 - (-7) =$ _____

ANSWER: -4

23. Subtract.

$-4 - 9 =$ _____

ANSWER: -13

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24. Subtract.

$13 - (-3) = \underline{\hspace{2cm}}$

ANSWER: 16

25.  Use pencil and paper to answer the question.

Subtract.

a. $-4 - (-3) = \underline{\hspace{2cm}}$

b. $-11 - 3 = \underline{\hspace{2cm}}$

c. $\underline{\hspace{2cm}} = -3 - (-10)$

d. $3 - (-7) = \underline{\hspace{2cm}}$

ANSWER:

a. -1

b. -14

c. 7

d. 10

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

$5.1 * 71 = \underline{\hspace{2cm}}$

ANSWER: 362.1

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

$0.78 * 8 = \underline{\hspace{2cm}}$

ANSWER: 6.24

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

$16.8 \div 6 = \underline{\hspace{2cm}}$

ANSWER: 2.8

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

$55.5 \div 5 = \underline{\hspace{2cm}}$

ANSWER: 11.1

30.  Use pencil and paper to answer the question.

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

a. $\underline{\hspace{2cm}} = 3.9 * 65$

b. $\underline{\hspace{2cm}} = 0.71 * 7$

c. $23.4 \div 6 = \underline{\hspace{2cm}}$

d. $81.5 \div 5 = \underline{\hspace{2cm}}$

ANSWER:

a. 253.5

b. 4.97

c. 3.9

d. 16.3

31.  Use pencil and paper to answer the question.**Record Rainfall**

According to the National Weather Service, the most rain that fell in the United States in a 24-hour period was 42 inches. This happened in Alvin, Texas, on July 25 and 26, 1979.

Imagine that it rained 42 inches in your classroom. About how many pounds would the water weigh?

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Hints:	1 cubic foot of water weighs about 62.5 pounds. 1 ton equals 2,000 pounds.
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a. List the information you need to solve the problem.

b. Explain your plan for solving the problem.

c. If 42 inches of rainwater fell in a classroom that is 28 feet long and 26 feet wide, about how many pounds would the rainwater weigh? Show all of your work.

d. Would this much rain fit in your classroom? Why or why not?

ANSWER: a. I need to know the length and width of my classroom, the height of the rain, and the average weight of rain.
b. I will find the area of the floor of my classroom in square feet, and then multiply by the height of the rain in feet to find the volume of the rain. Then I will multiply by the weight of 1 cubic foot of rain to find the total weight of the rain.
c. 42 inches is equal to 3.5 feet, so the volume of the rain in cubic feet is $28 \text{ feet} * 26 \text{ feet} * 3.5 \text{ feet} = 2,548 \text{ cubic feet}$. Since rain weighs 62.5 pounds per cubic foot, the rain in the classroom would weigh about 159,250 pounds, or about 80 tons.

Name: _____ Class: _____ Date: _____

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d. Yes. 42 inches is only about 4 feet, and the ceilings in my classroom are about 10 feet high.