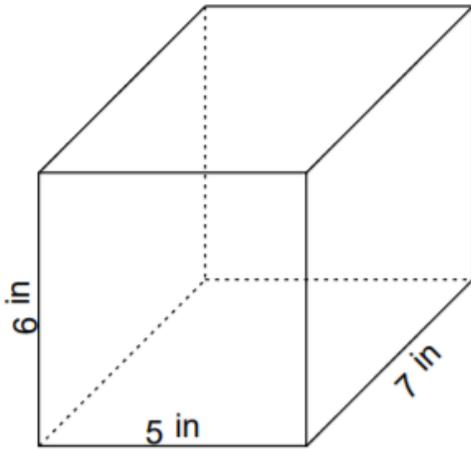1. Find the volume of the rectangular prism below. Explain or show how you got your answer.
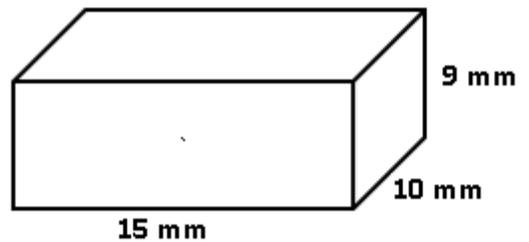

6 in

5 in

7 in

2. A rectangular prism is shown on the right.

A. Which expression can be used to find the greatest number of 1-millimeter unit cubes that could be packed into the prism?
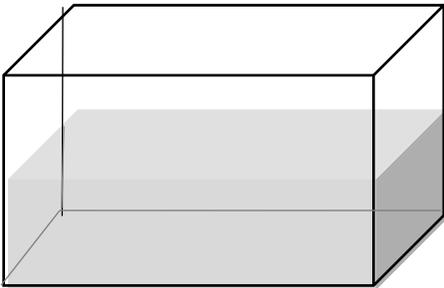
A. 150 x 9
B. 15 x 10
C. 10 x 9
D. 15 + 10 + 9

9 mm

10 mm

15 mm

B. What is the volume of the prism?

A. 1,500 mm³
B. 1,350 mm³
C. 285 mm³
D. 225 mm³

3. Lily has a rectangular cabinet that she is filling with 1-foot cubes. The base of the cabinet is 16 square feet. If the cabinet is 7 feet tall, how many cubes can the cabinet hold?

4. A fish tank has a base area of 45 cm^2 and is filled with water to a depth of 12 cm. If the height of the tank is 25 cm, how much more water will be needed to fill the tank to the brim?

5. Emily has $\frac{1}{2}$ yard of wrapping paper. She will use the same amount of wrapping paper to wrap 3 packages. How much wrapping paper, in yards, will Emily use for each package?
   a. $\frac{1}{6}$
   b. $\frac{3}{2}$
   c. $3\frac{1}{2}$
   d. 6

6. Each row in the auditorium has 18 seats. 246 students are going to watch an assembly in the auditorium. How many rows of seats will be completely filled?
   a. 12 rows
   b. 13 rows
   c. 14 rows
   d. 15 rows

7. Sam had $1\frac{1}{2}$ meters of rope. He cut off $\frac{5}{6}$ of a meter and used it for a project. How much rope does Sam have left?

8. Nico has 70 stamps. About 5/8 of them are animal stamps. About how many of Nico's stamps are animal stamps?
   a. About 25 stamps
   b. About 45 stamps
   c. About 35 stamps
   d. About 55 stamps

9. What is the sum for the expression below?

$2\frac{3}{4} + 1\frac{1}{4} + 3\frac{1}{2}$

   a. $6\frac{1}{3}$
   b. $6\frac{1}{2}$
   c. $6\frac{6}{4}$
   d. $7\frac{1}{2}$

10. A male lion weighs about 400 pounds. How many tons would 15 lions weigh?

11. The worlds heaviest lobster weighed 44 pounds and 6 ounces. How many ounces did the lobster weigh?

12. The width of Canberra was 102 feet. How many yards wide is the ship?

13. The tail of Boeing 747 is 63 feet and 8 inches tall. How many inches tall is the tail?

14. The table below shows the number of peanuts found in different foods.

Food Item	Number of Peanuts
Trail Mix	98.7
Energy Bar	35.4
Cookie	3.8
Salad	20.3

What is an appropriate estimate for the number of peanuts in the trail mix, cookie and salad combined?

   a. 110 peanuts
   b. 123 peanuts
   c. 138 peanuts
   d. 158 peanuts

15. There are 4,153 hens on the farm. Show work in this column Each hen lays 23 eggs per week. How many total eggs are laid in a week?

16. A store has 48 boxes of games. Each box of games contains 52 games. The games are sold for $18 each. What is the total amount of money the store can earn from selling all the games?

17. On Friday, April 13, 2018, there were 749 outbound flights each carrying approximately 101 passengers. If there are usually 58,112 daily outbound passengers from Logan, how many more passengers flew out of Logan that Friday than usual?

18. Kari had 4 liters of water in a container. She poured the entire container of water into glasses that each held $\frac{1}{6}$ liter. How many $\frac{1}{6}$-liter glasses did Kari fill?

19. Suzy runs $1\frac{1}{4}$ miles a day for one week. Gretchen walks 3 miles a day for one week. How many more miles does Gretchen cover than Suzy in one week?

20. If three people equally share 2 bags of Hot Cheetos, what fraction of the bag does each person receive?

21. Which of the following is equivalent to the numerical expression below?

$(30 \div 6) - 12$

a. 12 decreased by the quotient of 30 and 6
b. 12 less than the sum of 30 and 6
c. Subtract 12 from the quotient of 30 and 6
d. Subtract 12 by the quotient of 30 and 6

22. Which of the following is equivalent to the written expression below?

24 decreased by the difference of 100 and 38

a. $24 - (100 - 38)$
b. $100 - 38 - 24$
c. $100 + 38 - 24$
d. $24 - (100 + 38)$

23. Which of the following is equivalent to the written expression below?

Subtract 13 by the sum of 3 and 2

a. $13 - (3 + 2)$
b. $(3 \times 2) - 13$
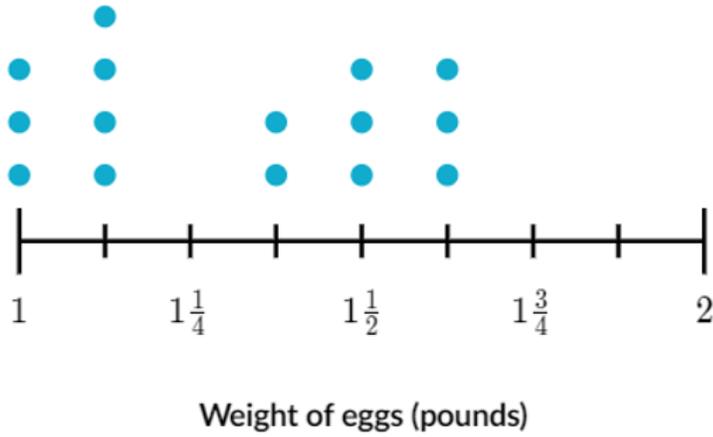c. $13 - (3 \times 2)$
d. $13 - (3 + 2)$

24. Sadie is making punch for her soccer team picnic. She uses 8 quarts of lemon-lime soda, 4 pints of vanilla ice cream, and 8 cups of orange juice.

a) How many quarts of vanilla ice cream does she use?

b) How many quarts of orange juice does she use?

c) How many quarts of punch will she have?

d) How many gallons of punch will she have?

25. Brad weighs 125 pounds. How could you change 125 pounds to tons?

26. Sharon's pony weighs 500 pounds. How many tons does her pony weigh? How many ounces does her pony weigh?

27. The polar bear at the Hyde Park Zoo weighs 1,433 pounds 15 ounces. How many ounces in all does the polar bear weigh?

28. Dan bought some paint. He used 2.25 gallons painting his living room. After that, he had 3.84 gallons left. How much paint did he buy?

29. Rodney bought a 25-pound bag of dog food. The dog ate 10.4 pounds of food in the first month and 10.86 pounds of food in the second month. How much dog food, in pounds, was remaining in the bag at the end of the two months?

30. Michael bought 13 bags of Hot Cheetos. One bag of Hot Cheetos has 12.4 grams of sodium. How many milligrams of sodium are in all of the bags Michael bought?

31.

The plot below shows the weight of each of 15 ostrich eggs.

Weight of eggs (pounds)

a. What is the difference between the heaviest egg and the lightest?

b. What is the total number of pounds all of the ostrich eggs weigh combined?