Level 1: Measurement and Data Pretest

Question 1:
Nicholas is 142 centimeters tall.

What is his height in meters?

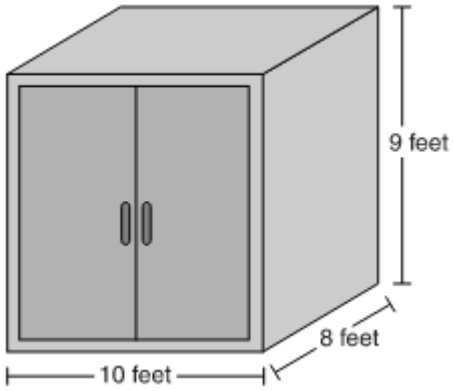
a. 1.42 meters

b. 14.2 meters

c. 1,420 meters

d. 14,200 meters

Question 2:
The dimensions of Jacob's storage shed are shown below.



What is the volume of Jacob's shed?

a. 27 cubic feet

b. 80 cubic feet

c. 484 cubic feet

d. 720 cubic feet

Question 3:
Peter and Richard had a contest to see who could throw a ball farther.

- Peter threw his ball 24 yards.
- Richard threw his ball 12 feet farther than Peter.

How far, in yards, did Richard throw his ball?

_____ yards

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Question 4:
Jon read that an average human sheds 640 ounces of skin in a lifetime.

How many pounds is 640 ounces?

_____ pounds

Question 5:
A shipping container in the shape of a rectangular prism is 7 meters long, 2 meters wide, and 3 meters tall.

What is the volume, in cubic meters, of the shipping container?

_____ cubic meters

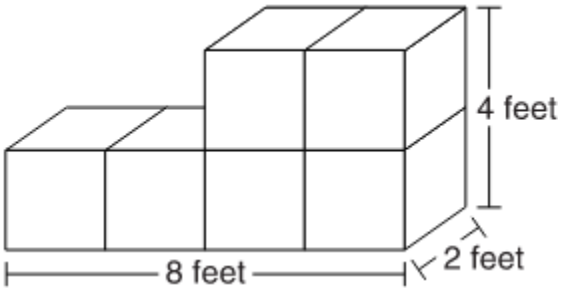
Question 6:
A children's shoe company is ordering cardboard boxes. Each box will have a volume of 240 cubic inches and will be 10 inches long and 8 inches wide.

How tall, in inches, should the box be?

_____ inches

Question 7:

A stack of boxes is shown below.



All the boxes are the same size and shape.

What is the total volume, in cubic feet, of the stack of boxes?

_____ cubic feet

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Question 8:
Jess needs a box that will hold 36 cubes. The edge length of each cube is 1 inch.

What are the length, width, and height of a box that would hold 36 cubes with no space left over?

a. 16 inches, 10 inches, 10 inches

b. 12 inches, 12 inches, 12 inches

c. 6 inches, 3 inches, 2 inches

d. 6 inches, 6 inches, 6 inches

Question 9:
Victor is building a box to hold 100 one-inch cubes. The bottom of the box is a square with each side measuring 5 inches.

How tall must the box be to hold all 100 cubes?

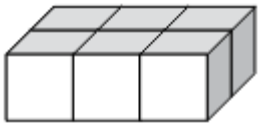
a. 2 inches

b. 3 inches

c. 4 inches

d. 5 inches

Question 10:
Eliza makes this figure with cubes as the base of a rectangular prism. The side length of each cube is 1 centimeter.



Eliza adds more layers until the prism is 9 cubes high.

Which expression shows how to find the volume of the prism?

a. $(2 + 3) + 9$

b. $(2 + 3) \times 9$

c. $(2 \times 3) + 9$

d. $(2 \times 3) \times 9$

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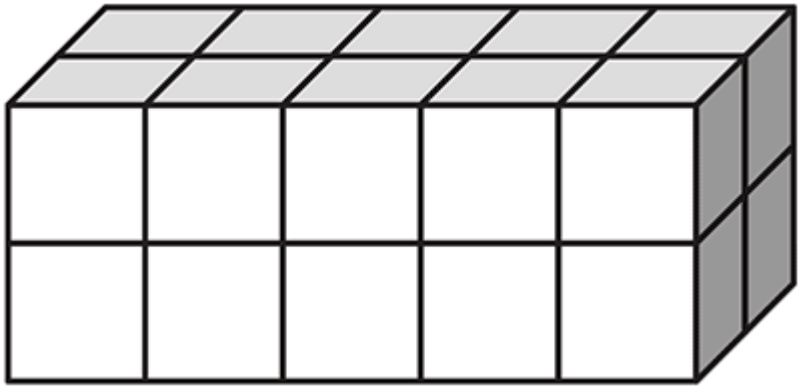
Question 11:
A rectangular prism is made with cubes.



The side length of each cube is 1 centimeter.

What is the volume of the rectangular prism?

a. 10 cubic centimeters

b. 16 cubic centimeters

c. 20 cubic centimeters

d. 24 cubic centimeters

Question 12:
A factory worker is packing sugar cubes into a box. Each sugar cube has a side length of 1 centimeter. When he puts 140 cubes in the box, there is no space left. All edge lengths of the box are whole numbers of centimeters.

Which could be the height of the box?

a. 7 centimeters

b. 8 centimeters

c. 12 centimeters

d. 21 centimeters

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Question 13:
A fish tank is shaped like a rectangular prism. It is 6 feet long and 4 feet wide. The amount of water that is needed to fill half of the tank is 60 cubic feet.

What is the height of the fish tank?

a. 5 feet

b. 6 feet

c. 12 feet

d. 20 feet

Question 14:
A wooden block is a rectangular prism with a volume of 140 cubic centimeters. The block is 14 centimeters long and 5 centimeters wide.

What is the height of the block?

a. 2 centimeters

b. 10 centimeters

c. 28 centimeters

d. 70 centimeters

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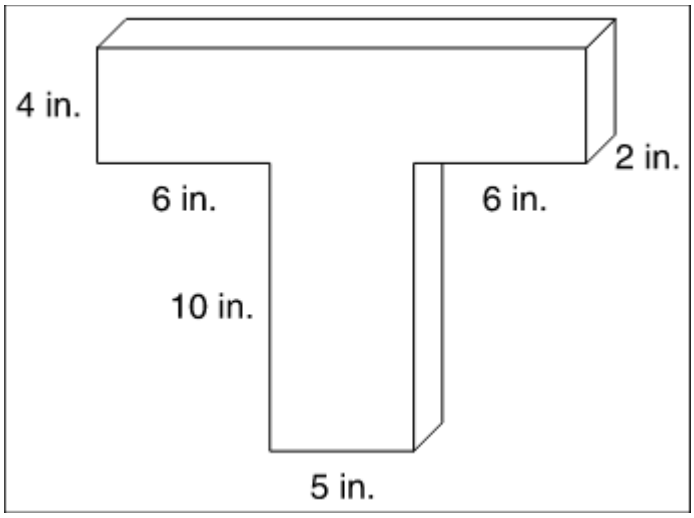
Question 15:
This figure is made with two rectangular prisms.



The picture shows a figure created by two rectangular prisms. One prism has a length of seventeen inches, a width of two inches, and a height of four inches. The other prism has a length of five inches, a width of two inches, and a height of ten inches.

What is the volume of the figure?

a. 186 cubic inches

b. 196 cubic inches

c. 236 cubic inches

d. 244 cubic inches

Stop