Name: _____   Date:_____
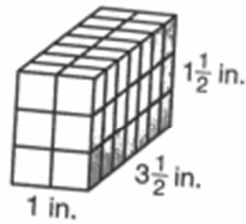Ms. Napolitano   Activity 4.5

Volume of a Rectangular Prism

Homework 10

~~...~~ the correct answer.

Use the rectangular prism below for questions 1 and 2.
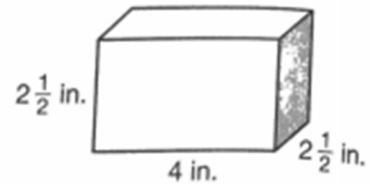

1. How many cubes are inside the rectangular prism?

   A. 27 cubes   C. 41 cubes
   B. 28 cubes   D. 42 cubes

2. If each cube has a volume of $\frac{1}{8}$ cubic inch, what is the volume of the rectangular prism?

   A. $3\frac{1}{4}$ in.³   C. $6\frac{1}{4}$ in.³
   B. $5\frac{1}{4}$ in.³   D. 42 in.³
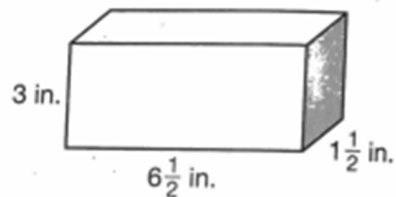
3. What is the volume of the cube shown below?
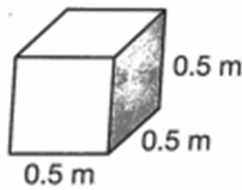
   A. 0.125 m³   C. 1.25 m³
   B. 0.25 m³   D. 1.5 m³

4. What is the volume of this rectangular prism?

   A. 9 in.³   C. 50 in.³
   B. 25 in.³   D. 100 in.³

5. What is the volume of this rectangular prism?

   A. $18\frac{3}{8}$ in.³   C. $29\frac{1}{4}$ in.³
   B. 27 in.³   D. $40\frac{1}{2}$ in.³

6. What is the volume of this cube?
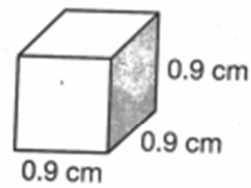
   A. 7.29 cm³
   B. 0.729 cm³
   C. 0.27 cm³
   D. 0.027 cm³

7. Keiko bought this plastic storage box for her room. What is the volume of the box?
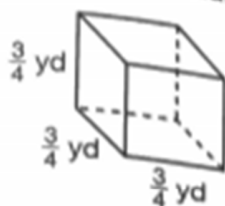
$\frac{3}{4}$ yd

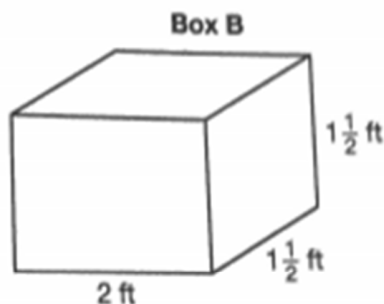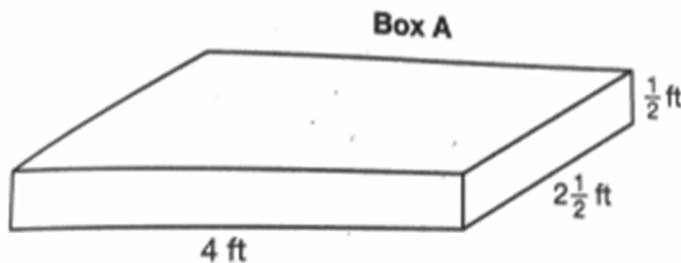$\frac{3}{4}$ yd

$\frac{3}{4}$ yd

A. $\frac{27}{64}$ yd³

B. $\frac{3}{4}$ yd³

C. $2\frac{1}{4}$ yd³

D. $6\frac{3}{4}$ yd³

8. What is the maximum number of cubic feet of water this swimming pool can hold?

$10\frac{1}{2}$ ft

$16\frac{1}{2}$ ft

6 ft
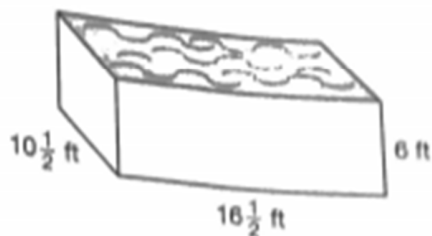
A. $1,039\frac{1}{2}$ ft³

B. $1,030\frac{1}{2}$ ft³

C. $961\frac{1}{2}$ ft³

D. $960\frac{1}{4}$ ft³

9. A self-storage facility sells the two boxes shown below.

Box A

$\frac{1}{2}$ ft

$2\frac{1}{2}$ ft

4 ft

Box B

$1\frac{1}{2}$ ft

$1\frac{1}{2}$ ft

2 ft

A. Find the volume of Box A, in cubic feet, showing each step in the process.

B. Which box has the greater volume, box A or box B? Show each step of your work.