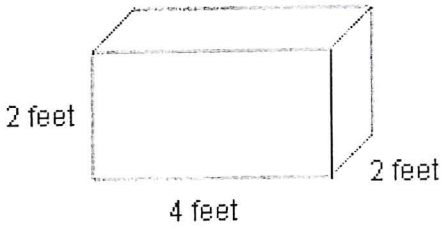
Grade 5 Sample Items

1. **Mike has a fish tank shaped like a rectangular prism. A diagram of the tank is shown below.**



Volume of rectangular prism = lwh

= length x width x height

What is the volume, in cubic feet, of the fish tank?

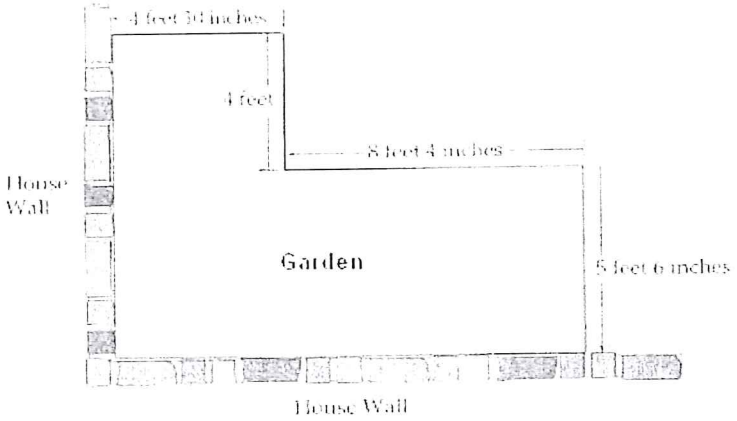
A. 6 cubic feet

B. 8 cubic feet

C. 10 cubic feet

D. 16 cubic feet

2. **Daniel is building a garden in his yard. The measurements of the garden are shown in the diagram below.**



What is the total PERIMETER, in feet and inches, of the garden?

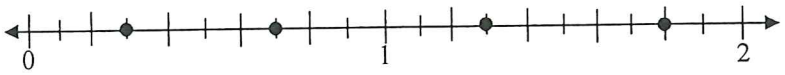
A. 22 feet 4 inches

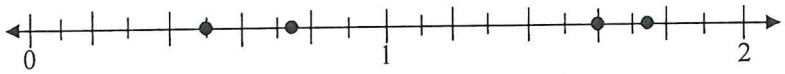
B. 22 feet 8 inches

C. 44 feet 8 inches

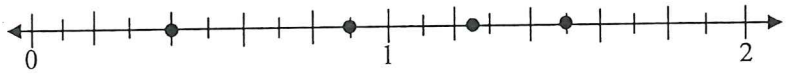
D. 45 feet 4 inches

3. **Which of the following number lines shows the correct placement of the numbers 1.6, 0.75, 1¾, and ½ ?**

A. 

B. 

C. 

D. 

4. **The sum of $\frac{3}{8}$ and $\frac{1}{4}$ is between which two numbers?**

A. 0 and $\frac{1}{4}$

B. $\frac{1}{4}$ and $\frac{1}{2}$

C. $\frac{1}{2}$ and $\frac{3}{4}$

D. $\frac{3}{4}$ and 1

5. **Allie collected 16 baseball cards. She gave some to Sean and then bought 6 more. Which expression could you use to represent the number of baseball cards Allie has now?**

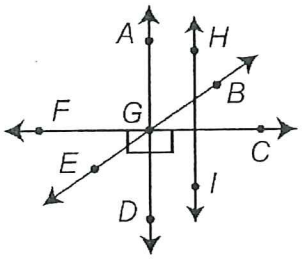
A. $(16 - c) + 6$

B. $(16 - c) - 6$

C. $(16 + c) + 6$

D. $(16 + c) - 6$

6. **Which lines in the drawing appear to be parallel to each other?**



A. line EB and line FC

B. line AD and line HI

C. line AD and line FC

D. line HI and line FC

7. **A number cube is numbered from 1 to 6. If you roll the cube, what is the probability that you will roll an odd number?**

A. 0

B. $\frac{1}{3}$

C. $\frac{1}{2}$

D. 1

8. Coins are produced at the United States Mint in Philadelphia. If the mint can make 45,000 coins each hour, how many coins can it make in a 24-hour period?

Show All Work

Answer_____ **coins**

On the lines below, describe a method you could use to decide whether your answer is reasonable.

_____

_____

_____

_____

9. Blueberry muffins are on the menu every morning in the school cafeteria. The cook keeps track of the number of pints of blueberries she uses each day.

Pints of Blueberries Used	
Monday	$4\frac{1}{2}$ pints
Tuesday	$3\frac{2}{3}$ pints
Wednesday	$5\frac{1}{3}$ pints
Thursday	$3\frac{1}{2}$ pints
Friday	4 pints

The cook had 25 pints of blueberries at the beginning of the week. How many pints were left at the end of the week?

On the lines below, describe a method you could use to solve this problem. How many steps are there in your method?

_____

_____

_____

_____

Now solve the problem.

Show all work.

Answer _____ pints of blueberries

10. Edward is having a pizza party for his birthday. What fraction of a pizza will each person get when 3 pizzas are divided among 8 people?

Show all work.

Answer_____ pizza

Izzie was hungry and said that she would rather have 25% of a pizza because that would be more. On the lines below show why Izzie was incorrect and explain your answer.

_____

_____

_____

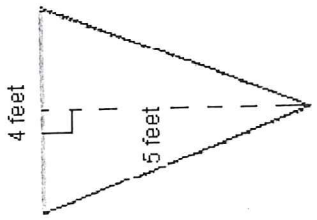
_____

Edward ended up having 1½ pizzas left over from the party. How many friends can have 25% of a pizza each?

Show all work

Answer_____ friends

11. Joan needs to paint the cardboard triangle shown in the diagram below for a school project.



Area of triangle $= \frac{1}{2}bh$

$= \frac{1}{2} \times$ base $\times$ height

Joan has a bottle of paint that covers an area of 8 square feet. She thinks she will have to buy another bottle of paint to paint the front of the cardboard triangle.

Use words, numbers, or symbols to prove that Joan is correct.

_____

_____

_____

_____

If Joan also wants to paint the back of the cardboard triangle, what is the total area, in square feet, that she will have left to paint AFTER using one bottle of paint?

Show All Work

Answer _____square feet

How many bottles of paint will she need to paint the entire front AND back of the cardboard triangle?

Show All Work

Answer _____bottles of paint

12. Dean is painting a wall that is 16 feet long and 9 feet high. One small can of paint will cover an area of 50 square feet.

How many cans of paint will Dean need to paint the wall?

Area of a rectangle $= lw$ = length × width

Show All Work

Answer _____ **cans**

Dean needs to paint a 2nd wall that measures 25 feet long and 5 feet high. He decides to buy 5 small cans of paint.

Use words, numbers, or symbols to verify if Dean has purchased enough paint to completely paint BOTH walls.