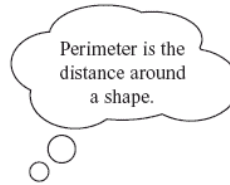
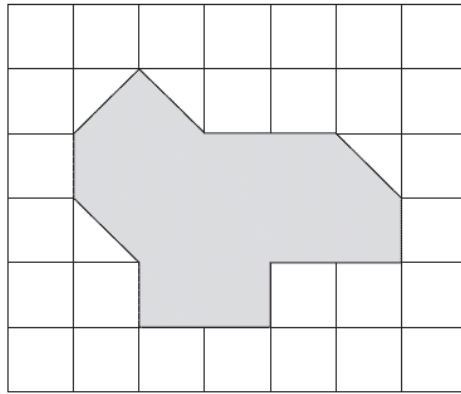



The Spring 2006 4th Grade MCAS exam has 39 questions, 5 of which are open response worth 4 points each. Each of the 34 multiple choice questions are worth 1 point each for a total test score of 54.

The picture below shows the shaded figure that Diego drew on a piece of grid paper.



1 unit

1 unit

Each  represents 1 square unit.

- What is the area, in square units, of the shaded figure? Show or explain how you got your answer.
- What are the dimensions (length and width), in units, of a rectangle with the same area as the shaded figure? Show or explain how you got your answer.
- What is the perimeter, in units, of the rectangle you described in part (b)? Show or explain how you got your answer.

a. 12 square units, is the area

How I got my answer is I made boxes in the figure, from the lines outside, I noticed the were ~~or~~ halves too, and there were four halves. 4 halves = equals 2 wholes so, in all there were 12 square units.

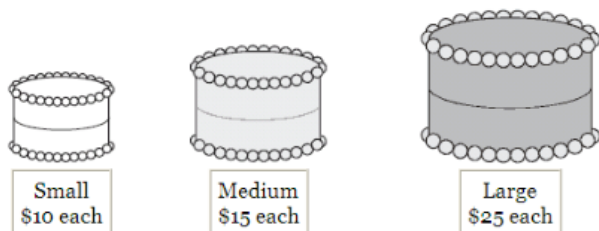
b. 2 by 6 could be one, because I thought, what times what equals 12, so I knew  $2 \times 6 = 12$ .

c. The perimeter is 16 inches

How, I got my answer is I did  $2 + 2 + 6 + 6$  which equals 16 inches.

$$\begin{array}{r} 2 + 2 = 4 \\ 6 + 6 = 12 \\ \hline 16 \end{array}$$

Hudson's Bakery sells cakes in three different sizes — small, medium, and large. The picture below shows the cost of each size of cake at the bakery.



- Wilma bought 1 small cake and 2 medium cakes. What was the total cost of the cakes Wilma bought? Show your work or explain how you got your answer.
- Justin has \$85.00 to spend on cakes. What is the **greatest** number of cakes he can buy with exactly \$85.00? Show your work or explain how you got your answer.
- Sheila bought a group of cakes that cost a total of \$70.00. At least 2 of the cakes she bought were different sizes. List a group of cakes that Sheila could have bought. Show your work or explain how you got your answer.

#### Question 13 - Score Point 4

a. If Wilma bought 1 small cake and 2 medium cake, the total cost would be \$40.00. I got this answer simply by adding 10, 15, and 15.

$$\begin{array}{r} 15 \\ 15 \\ + 10 \\ \hline 40 \end{array}$$

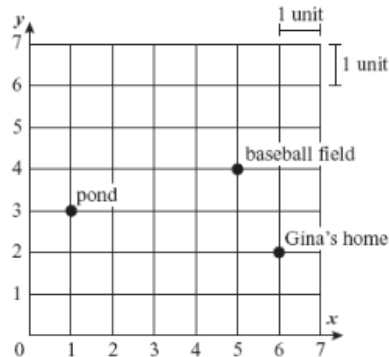
b. The greatest number of cakes Justin can buy with \$85.00, is 8 cakes. If he were to spend all his money, he would get 7 small cakes, and 1 medium cake. If he wanted to save, he would buy 8 small cakes, and have \$5.00 left over.

c. If Sheila had \$70.00 and she wanted <sup>at least</sup> 2 different kinds of sizes, she could get either 2 Large and 2 smalls, or 1 large, 1 medium, and 3 smalls. I got these answers by adding the costs together. \$10 or \$25

$$\begin{array}{r} 10 \\ 10 \\ 15 \\ + 25 \\ \hline 70 \end{array} \quad \begin{array}{r} 25 \\ 25 \\ 10 \\ + 10 \\ \hline 70 \end{array}$$

**Question 17:** Geometry

The points on the grid below represent the locations of Gina's home, a pond, and a baseball field. The grid lines represent the streets in Gina's neighborhood.



- Write the ordered pair that best represents the location of Gina's home on the grid.
- Moving along the grid lines, the shortest distance from Gina's home to the baseball field is 3 units. Moving along the grid lines, what is the shortest distance, in units, from Gina's home to the pond? Show or explain how you got your answer.
- Moving along the grid lines, the shortest distance from Gina's home to her school is 7 units. Write an ordered pair that could be the location of her school. Show or explain how you got your answer.

**Question 17 - Score Point 4**

A. (6, 2)

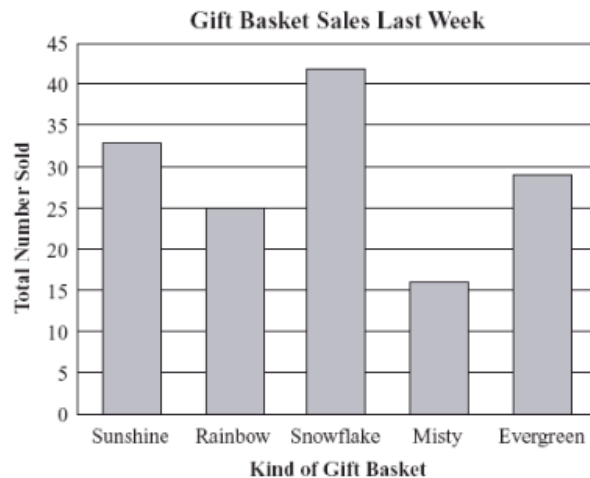
B. 6 units because if you go 1 unit up then turn to the left and go 5 units then you come to the pond.

C. The ordered pair is (3, 6). I got my answer by going up 4 units and going left 3 units.

**Question 27:** Data Analysis, Statistics, and Probability



Gilda's Gift Shop sells five different kinds of gift baskets. The graph below shows the total number of each kind of gift basket sold last week.



- What was the total number of gift baskets that the shop sold last week? Show your work or explain how you got your answer.
- For each basket sold, the shop donated \$5 to a local charity. For the week shown on the graph, how much did the shop donate to the charity? Show your work or explain how you got your answer.

**Question 27 - Score Point 4**

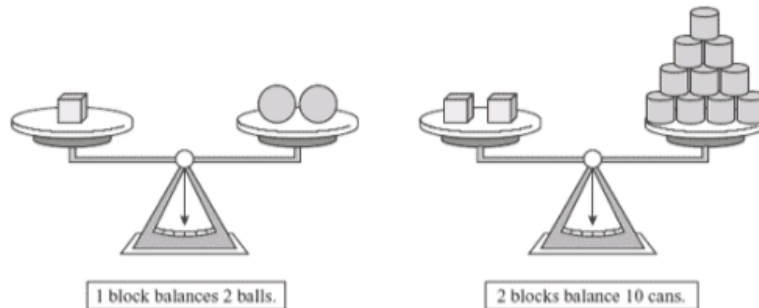
①  $SS = 33$   
 $R = 25$   
 $SF = 42$   
 $M = 16$   
 $EG = 29$   
 $145$  baskets were sold

②  $5 \times 33 = 165$  dollars donated from Sunshine baskets  
 $5 \times 25 = 125$  dollars donated from Rainbow baskets  
 $5 \times 42 = 210$  dollars donated from Snowflake baskets  
 $5 \times 16 = 80$  dollars donated from Misty baskets  
 $5 \times 29 = 145$  dollar donated by Evergreen baskets.  
 $145 + 80 + 210 + 125 + 165 = 725$  dollar were donated that week!

**Question 31:** Patterns, Relations, and Algebra



The pictures below show how two different groups of shapes balance a scale.



- If 1 block weighs 10 pounds, what is the weight, in pounds, of 1 ball? Show or explain how you got your answer.
- What is the total number of blocks needed to balance 6 balls? Show or explain how you got your answer.
- What is the total number of balls needed to balance 10 cans? Show or explain how you got your answer.

**Question 31 - Score Point 4**

(part a) I got the answer by thinking half of 10 is 5 and  $5 + 5 = 10$ , so 1 ball weighs 5 pounds.

(part b) The answer is 3 blocks because 3 blocks is 30 and 6 balls = 30 pounds.

(part c) The answer is four because 10 cans weigh 20 pounds and  $4 \times 5 = 20$  so the answer is four.