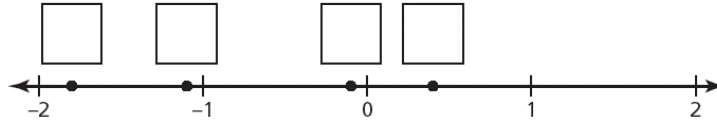


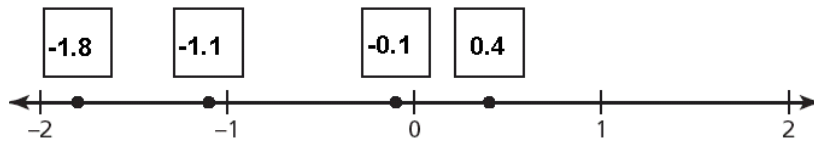
Calculators were not permitted for this test. All work had to be done in booklet.

- 26) You are given the following numbers:  $-1.8$        $0.4$        $-0.1$        $-1.1$

Your task is to place them in their proper spots on the line below.



$0.4$  is the only positive number and therefore will go to the right of the 0. Regarding the remaining negative numbers,  $-1.1$  will be closest to 0. You are left with  $-1.1$  and  $-1.8$ . The smaller the number, the more to the left it will be. Therefore  $-1.8$  will be the leftmost number appearing on the line, followed by  $-1.1$ .



- 27) You are given the equation  $f - 124 = 237$  and are asked to find "f" the total number of flowers.

$$\begin{array}{l}
 f - 124 = 237 \quad \text{Add 124 to both sides.} \\
 f = 237 + 124 \\
 f = 361
 \end{array}
 \qquad
 \begin{array}{r}
 \phantom{+} 1 \\
 + 237 \\
 + 124 \\
 \hline
 361
 \end{array}$$

**ANSWER part A: 361 flowers**

**ANSWER part B: I realized that after taking 124 away from "f" I was left with 237, so I added the 124 back to the 237 to find the original number of flowers.**

- 28) Carlos burns 75 calories for every 15 minutes he walks.

**Part A:** How many calories will he burn if he walks for 45 minutes?

45 minutes is 3 times as much as 15 minutes so he will burn 3 times as many calories.

**ANSWER: He will burn 225 calories.**

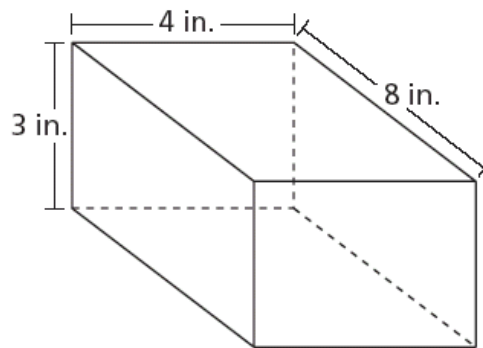
$$\begin{array}{r} 1 \\ 75 \\ \times 3 \\ \hline 225 \end{array}$$

**Part B:** How many minutes must Carlos walk in order to burn 300 calories?

$4 \times 75 = 300$  This means there are 4 75's in 300. Each 75 is a 15-minute walk. Therefore to burn 300 calories which is 4 75's will require 4 15-minute walks.  $4 \times 15 = 60$ .

**ANSWER: He must walk 60 minutes.**

- 29) There was a similar problem to this one in book 1. This time you are given the dimensions of the side as well as the formula for finding the volume of a arectangular prism. The diagram appears below.



$$V = lwh$$

The formula above is telling you that to find the volume you have to multiply the length, width, and height.

$$3 \times 4 \times 8 = 96$$

**ANSWER: The volume is 96 cubic inches.**

- 30) A bag contains 7 flavored biscuits: 2 cheese, 3 bacon, 2 beef  
 What is the probability that Melissa will pick at random either a cheese biscuit or a beef biscuit.

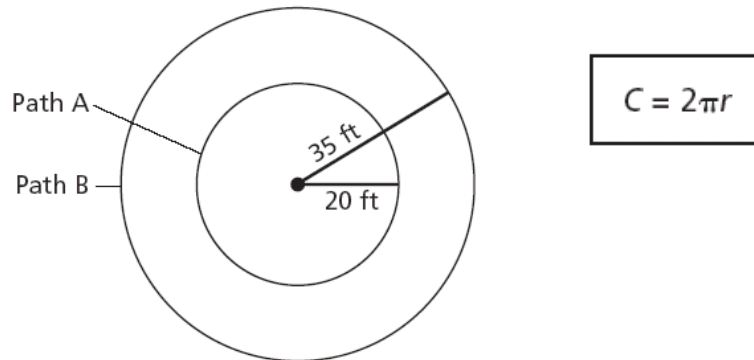
You can list the available biscuits. Put a check next to the selection that will satisfy the required condition (either cheese or beef).

<b>cheese1</b> ✓	<b>bacon1</b>	<b>beef1</b> ✓
<b>cheese2</b> ✓	<b>bacon2</b>	<b>beef2</b> ✓
	<b>bacon3</b>	

You can see that 4 out of the 7 items satisfy the given condition.

**ANSWER:** The probability is  $\frac{4}{7}$

- 31) The diagram below shows the path of two riders on a merry-go-round. It also shows the formula for finding the circumference of a circle. r represents the radius.



You are asked how much greater in feet is the circumference of Path B than the circumference of Path A?

<b>Path B circumference</b>	<b>Path A circumference</b>
<b><math>2 \times 35 \times \pi</math></b>	<b><math>2 \times 20 \times \pi</math></b>
<b><math>70\pi</math></b>	<b><math>40\pi</math></b>

To find how much greater: subtract

$$70\pi - 40\pi = 30\pi$$

**ANSWER:**  $30\pi$  feet.

- 32) Tanya is given the following expression and asked to find its value:  $5 \times 4^2$

$$5 \times 4^2 = 5 \times 4 \times 4 = 20 \times 4 = 80$$

**ANSWER part A: 80**

What would be the value of the expression if the exponent changed from 2 to 3?

$$5 \times 4^3 = 5 \times 4 \times 4 \times 4 = 20 \times 4 \times 4 = 80 \times 4 = 320$$

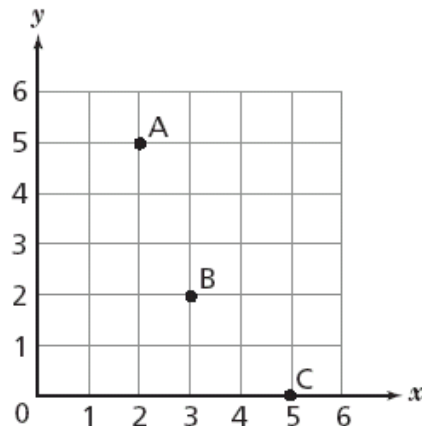
**ANSWER part B: 320**

- 33) You are presented with the grid at the right and are asked for the coordinates of point C.

**ANSWER: ( 5 , 0 )**

**EXPLANATION:**

The first number given is the x-coordinate. C has an x-coordinate of 5. The next number is the y-coordinate of the given point. Since that the point is on the x-axis, its y-coordinate is 0.



- 34) Tyrone saved \$24 of the \$60. What percent of his earnings did he save?

Tyrone saved  $\frac{24}{60}$ . Divide numerator and denominator by 6.  $\frac{24}{60} = \frac{4}{10}$

$\frac{4}{10}$  as a decimal is .4

To convert a decimal to a percent, move the decimal 2 places to the right. .4 becomes 40.

**ANSWER: 40%**

**Alternate method:** Any fraction can be converted to a decimal by dividing the numerator by the denominator. In this case, here is what it would look like:

$$\begin{array}{r} .40 \\ 60 \overline{)24.00} \\ \underline{240} \\ 00 \\ \underline{0} \\ 0 \end{array}$$

Now move the decimal point two places to the right and you have your answer of 40%

35) **Part A:** Solve for n and show work:

$$\begin{aligned} 38 + n &= 57 && \text{Subtract 38 from each side.} \\ n &= 19 \end{aligned}$$

$$\begin{array}{r} 417 \\ - 38 \\ \hline 19 \end{array}$$

**ANSWER: 19**

**Part B:** Solve for y and show work:

$$\begin{aligned} \frac{y}{5} &= 103 && \text{Multiply each side by 5.} \\ y &= 515 \end{aligned}$$

$$\begin{array}{r} 1 \\ 103 \\ \times 5 \\ \hline 515 \end{array}$$

**ANSWER: 515**