Name _____   Date _____

Pre-algebra Word Problems Guided Lesson Explanation

1) We know the cost of a sandwich it is $4. We also know the amount of money spent. We need to find the cost of a donut.

Step 1: Subtract the cost of sandwiches from the total.

Total = $96   12 sandwiches were purchased at $4 each = 12 ($4) or $48

$96 - $48 = $48

Step 2: Divide the total amount of the cost of donuts by the total number of donuts purchased.

cost of donuts = $48   total number of donuts purchased = 8

$48 ÷ 8 = $6

The cost of a donut is $6.

2) We know that Tris can type 5 documents in 20 minutes.

Step 1) Convert the given time to minutes.

1 hour and 40 minutes   We know that 1 hour = 60 minutes.

60 minutes + 40 minutes = 100 minutes

Step 2) We just need to figure how many of those time increments (20 minutes) are in the given time (100 minutes)

100 minutes ÷ 20 minutes = 5

We now know that Tris can complete this task 5 times.

Step 3) Find the total number of documents that she can type.

Tris can type 5 documents on each task. We know that in that time period she will complete the task 5 times.

5 documents x 5 tasks = 25 documents

She will type **25 documents** in 1 hour and 40 minutes.

3) We start by writing the problem as an equation. We will refer to Christina's original collection of paintings as x. Now we will look at what happen to x within the problem.

Step 1) Christina gave one-third of her collection of paintings to her brother. This means that Christina has two-thirds of her collection or:

(x ● 2/3)

Step 2) Then she gave 10 paintings to her sister:

(x ● 2/3) - 10

Step 3) Now she is left with 8 painting

(x ● 2/3) − 10 = 8

Step 4) Solve for x.

(x ● 2/3) − 10 = 8

(x ● 2/3) = 18   (Add 10 to both sides.)

x = 18 (3/2)   (Multiply both sides by the reciprocal of 2/3)

x = 27