

Lesson Context

BIG PICTURE of this UNIT:	<ul style="list-style-type: none"> What are the most important components of “Problem Solving”? What are the major topics from linear that we have worked with, remember, and are fluent with? How do we apply the function concept to linear? 		
CONTEXT of this LESSON:	Where we’ve been 8 th Grade or IM 1, we have developed linear function skills. In this unit we hope to further our understanding of linear	Where we are Today we begin our work with IM 2. We will have a problem solving focus all year and today we do just that. We will also start developing some linear functions.	Where we are heading How do fluent are we will linear functions and systems and can relate this to functions as a larger topic.

Lesson Objectives

Task 1: Problem Solving and Skills Focus

Task 2: Camel Problem

FAST FIVE: SKILLS Warm Up

1. Solve the following for x. $-\frac{2}{3}x + 7 = -3$

2. Solve the following for y.

$$8 - y = 3x - 1$$

$$3y = 2x - 9$$

$$4y - 2x = 8x + 3$$

Task 1: Problem Solving and Skill Focus

Would you rather have 1 of 8 slices from a 10" pizza OR 1 of 10 slices from a 14"?



EXTENSION: Into how many slices should the 14" pizza be cut so that one slice is less than $\frac{1}{8}$ th of the 10" pizza?

Task 2: Camel Problem

Please work in your groups to solve this problem. Show your work with pictures, charts... anything. Your **process and solution** must be understandable by simply looking at your work.

The Problem...



There is a Camel on the edge of a **1000 km wide desert**. Beside the camel is a pile of **3000 bananas**. The camel can carry **at most 1000 bananas** at a time. For **every km** it walks it has to **eat one banana**.

What is the largest amount of bananas the camel can end up with on the other side of the desert?

Questions?? Talk with your group and decide if there are clarifying questions you will need to ask before you can complete this problem.

Your goal!! Solve the problem as best as you can. Come up with pictures and charts that show your answer.

Extension Questions:

- How do you know if your solution is the “correct” answer?
- How does the problem change if you have 6000 bananas and the desert is 2000 km wide?
- How does the problem change if you have ***b*** bananas and the desert is ***w*** km wide?