**Unit 1: Rational Numbers**

**Real World Experience: Iced Tea Stand Task 1**

Joe wanted to make some extra money for his summer vacation so he decided he was going to sell iced tea after sports practice at his school each weekday to earn some money. He went to the grocery store and bought 30 containers of iced tea and 5 packages of medium sized plastic cups. He planned to use the same amount of iced tea and cups each day and decided to sell the cups of iced tea for $1.05. After the first day, he sees that his profit for the day is negative but he decides to keep trying for the rest of the week in the hopes that he will turn a profit. He uses the same number of gallons of iced tea and the same number of packages of cups each of the five weekdays. This week he noticed that he sold the same number of cups each day. (Use the information below to determine Joe’s sales each day and for the week.)

1 container of iced tea – $3.79

1 package of medium plastic cups – $2.55

Cups sold each day – 22

**Calculate and complete the chart below:**

**Week 1 Profit each day:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Monday | Tuesday | Wednesday | Thursday | Friday |
|  |  |  |  |  |

**Profit for Week 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Unit 1: Rational Numbers**

**Real World Experience: Iced Tea Stand Task 2**

If Joe continues to sell the same amount each day, how long will it take him to begin to make a profit?

After looking over his sales for the week, Joe decides he needs to come up with a different sales approach in order to make more money. So, he decides to offer different sizes of iced tea for different prices. He finds a variety pack of cups at the store that contains small, medium and large cups that costs the same as the cups he bought the previous week so he buys 5 packages of those cups and the same 30 containers of iced tea as he did the week prior. He decides he will continue to charge $1.05 for the medium cups and will price the small cups at $.75 and the large cups at $1.55. He hopes this new strategy will take him from losing money last week to gaining money this week. Use the information below to determine if Joe started making a profit in Week 2 and then calculate his overall profit for the two weeks.

1 container of iced tea - $3.79

1 variety package of plastic cups - $2.55

Cups sold each day: 14 large, 10 medium, 6 small

**Calculate and complete the chart below:**

**Week 2 Profit each day:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Monday | Tuesday | Wednesday | Thursday | Friday |
|  |  |  |  |  |

**Profit for Week 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Overall profit for Weeks 1 and 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Unit 1: Rational Numbers**

**Real World Experience: Iced Tea Stand Task 3**

Add to the original story (from Task 1) by writing a scenario for Week 3. The scenario must use rational numbers, at least 3 of the 4 basic operations, and include an answer key.

**Problem:**

**­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1 container of iced tea –

1 variety package of plastic cups –

Cups sold each day:

**Week 3 Profit each day:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Monday | Tuesday | Wednesday | Thursday | Friday |
|  |  |  |  |  |

**Profit for Week 3: \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Combine Profit of Weeks 1-3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Unit 1: Rational Numbers**

**Real World Experience: Iced Tea Stand Task 4**

**Instructions:** Write your own math story (like the Iced Tea Stand, but not the same) with rational numbers. You must meet the following requirements:

* Stories must contain both positive and negative rational numbers.
* Stories must utilize all 4 operations (addition, subtraction, multiplication and division).
* Stories must be turned in with an answer key (including a visual representation of how to solve the problem on a separate sheet of paper.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Iced Tea Stand Task 4 Continued**

**Original Story Answer Key**

*Directions: Write your answer key and problem solving in the box below.*

|  |
| --- |
|  |

**Student Name:**

**Iced Tea Stand Task 4 Rubric**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Advanced - 4** | **Proficient - 3** | **Basic - 2** | **Below Basic - 1** |
| **Story** | Story demonstrates higher level thinking and complexity. Problem needs multiple steps to be solved. | Story makes sense, is creative, and sets up a believable real world problem. | Story makes sense and sets up a real world problem. | Story doesn’t make sense in a real world situation. |
| **Math Content** | Math on answer key is accurate. All four operations are used. Story contains both positive and negative numbers. Student includes some higher math, such as algebra, geometry, etc. | Math on answer key is accurate. All four operations are used. Story contains both positive and negative numbers. | Math on answer key is mostly accurate. All four operations are used. Story contains both positive and negative numbers. | Math on answer key is not accurate. Less than four operations are used. Story does not contain both positive and negative numbers. |
| **Answer Key** | Includes a visual representation of how to solve the problem. Explains a step-by-step process in great detail to solve the story problem. Possibly shows multiple ways to solve the problem. | Includes a visual representation of how to solve the problem. Explains a step-by-step process to solve the story problem. | Includes a visual and a step-by-step process to solve the story problem. Steps may be very basic or lacking information. Visual representation may be lacking in labels or other details. | Only includes one of the following: Visual or Step-by-step solution. Information does not solve the problem accurately. |

**Advanced: 11-12**

**Proficient: 8-10**

**Basic: 5-7**

**Below Basic: 1-4 TOTAL: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**