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| **Lemonade Business- 6.NS.6** | |
| **Domain** | **The Number System** |
| **Cluster** | **Apply and extend previous understandings of numbers to the system of rational numbers.** |
| **Standard(s)** | **6.NS. 6** Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.  **6.NS.6c** Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.  **6.NS.5** Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation. |
| **Materials** | Activity sheet |
| **Task** | **Lemonade Business**  In the summer Suzette starts a lemonade business outside the swimming pool.   |  |  | | --- | --- | | Day | Money | | Monday | Earned 5 dollars | | Tuesday | Lost 10 dollars | | Wednesday | Earned 4 dollars | | Thursday | Lost 5 dollars | | Friday | Earned 9 dollars | | Saturday | Earned 10 dollars |   Part 1:  Make a number line and plot all of the days of the week on a number line.  Part 2:  Which point(s) are farthest from 0?  Part 3:  Which pairs of points are the same distances from 0?  Part 4: If you were running the business on which two days would you make more lemonade due to successful business? |

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| **Rubric** | | |
| **Level I** | 1. **Level II** | **Level III** |
| Developing Proficiency   * Student uses inappropriate solution strategy and does not get the correct answer. | Not Yet Proficient   * There are one or two errors. | Proficient in Performance   * Accurately solves problem * Part 1: The number line has points plotted correctly. * Part 2: The points 10 and -10 are the farthest from 0. * Part 3: The pairs of points the same distance from 0 are 10 and -10 as well as 5 and -5. * Part 4: Friday and Saturday are the most successful days when more lemonade is needed. |

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| **Standards for Mathematical Practice** |
| **1. Makes sense and perseveres in solving problems.** |
| **2. Reasons abstractly and quantitatively.** |
| **3. Constructs viable arguments and critiques the reasoning of others.** |
| 4. Models with mathematics. |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| 7. Looks for and makes use of structure. |
| 8. Looks for and expresses regularity in repeated reasoning. |

**Lemonade Business**

In the summer Suzette starts a lemonade business outside the swimming pool.

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| Day | Money |
| Monday | Earned 5 dollars |
| Tuesday | Lost 10 dollars |
| Wednesday | Earned 4 dollars |
| Thursday | Lost 5 dollars |
| Friday | Earned 9 dollars |
| Saturday | Earned 10 dollars |

Part 1:

Make a number line and plot all of the days of the week on a number line.

Part 2:

Which point(s) are farthest from 0?

Part 3:

Which pairs of points are the same distances from 0?

Part 4:  
If you were running the business on which two days would you make more lemonade due to successful business?