Problem Solving Recording Sheet
2013-2014

| Grade Level: 5 | Day \#: | Name: |
| :--- | :--- | :--- |
| Grading Period: $\mathbf{2}^{\text {nd }} \mathbf{9}$ weeks | Unit Name: Unit 6 | Pacing: Minutes |
| Lesson Concept: <br> Patterns and Relationships | Materials: |  |
| Vocabulary: | (Readiness or New) TEKS: 5.5a |  |
| Reporting Category: |  |  |
| Think-Aloud <br> 1. Marty opened a savings account. He plans to deposit $\$ 15$ each week into his account. After one week he had <br> \$15. After 2 weeks he had \$30. <br> A. Create a table below that shows Marty's savings after 6 weeks. |  |  |


| Week | Process | Total Savings |
| :---: | :--- | :--- |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| 6 |  |  |

B. Use the pattern to predict how much money Marty will have in his savings account after 12 weeks. Explain your process.
C. Write a statement to describe the relationship in the table.

The total savings equals the $\qquad$ times $\qquad$ .
** For each problem, students will write/verbalize the relationship between data in the table.
2.

Rachelle used a number machine. When she put a number into the machine, a different number came out according to a rule. Some examples are shown below.


The number that came out of the machine is -
F 8.3 less than the number she put into the machine
G 7.7 less than the number she put into the machine
H 8.3 more than the number she put into the machine
J 7.7 more than the number she put into the machine

## Guided Problem Solving Examples

1. John bought cases of Takis to sell at his class carnival booth. Each case of Takis has 24 bags. Use the table below to predict how many cases John would need to purchase if he wanted 96 bags of Takis.

| Cases | 2 | $?$ | 6 | 8 |
| :--- | :--- | :--- | :--- | :--- |
| Bags of Takis | 48 | 96 | 144 | 192 |

How many cases would he need to buy if he found that he needed 120 bags?

Complete this statement to describe the relationship between the number of cases and bags of chips:
The number of cases multiplied by $\qquad$ equals $\qquad$ .

The number of bags of Takis divided by $\qquad$ equals $\qquad$ .

1. Fro-Yo-To-Go kept a record of the ounces of yogurt sold over a 7 day period.

| Day | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ounces Sold | 5 | 10 | 15 | 20 | $?$ | $?$ | 31 |

If the pattern of ounces continued for the week, how many ounces of yogurt did the shop sell on days 5 and 6 ?

What relationship do you see in the number of ounces of yogurt sold throughout the week?
2. Justine exercises the same amount of time each week. She keeps a list of the total number of minutes she has exercised since the first of the year. The table below shows part of her list.

Exercise Time

| Number of Weeks | Total Minutes |
| :---: | :---: |
| 5 | 300 |
| 6 | 360 |
| 7 | 420 |
| 8 | 480 |
| 9 | 540 |

Which statement describes the relationship between the total number of minutes and the number of weeks Justine exercises?
A. The number of weeks plus 295 equals the total number of minutes.
B. The number of weeks divided by 60 equals the total number of minutes.
C. The number of weeks times 60 equals the total number of minutes.
D. The number of weeks plus 30 equals the total number of minutes.

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## Independent Practice

1: Miles purchased some packs of Gummy Bears and was curious if each pack contained the same amount of Gummy Bears. The table below shows the number of Gummy Bears in 3,5 and 7 packages.

Gummy Bears

| Number of <br> Packages | Number of Gummy <br> Bears |
| :--- | :--- |
| 3 | 105 |
| 5 | 175 |
| 7 | 245 |

According to the table, does each pack contain the same amount of Gummy Bears? Yes NO

What is the relationship between the number of packages and the number of Gummy Bears?
A. The number of packages plus 102 equals the number of Gummy Bears.
B. The number of packages times 35 equals the number of Gummy Bears.
C. The number of packages divided by 35 equals the number of Gummy Bears.
D. The number of packages minus 35 equals the number of gummy bears.
2. Look at the lists, labeled L1 and L2, below:

$\begin{array}{llllll}\text { L2: } & 2.2 & 3.3 & 4.4 & 5.5 & 6.6\end{array}$
Which of the following statements is true about these lists?
A. Each number in L2 is 1.1 less than the numbers in L1.
B. Each number in L2 is 1.1 more than the numbers in L1.
C. Each number in L2 is 0.1 more than the numbers in L1.
D. Each number in L2 is 1 more than the numbers in L1.

## Homework Practice

1. The numbers below form a pattern.

$$
12,24,36,48,60,72
$$

What numbers would fit the pattern if it is extended?
a. 72, 82, 92
c. $84,94,104$
b. $84,96,108$
d. $80,90,100$

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2. Maria owns a bake shop and bakes the same amount of cookies each day. She keeps a list of the total number of cookies she has baked since she opened the shop. The table below shows part of her list.

Exercise Time

| Number of Weeks | Total Cookies |
| :---: | :---: |
| 5 | 125 |
| 6 | 150 |
| 7 | 175 |
| 8 | 200 |
| 9 | 225 |

Which statement describes the relationship between the total number of minutes and the number of weeks Justine exercises?
A. The number of weeks plus 120 equals the total number of cookies.
B. The number of weeks divided by 25 equals the total number of cookies.
C. The number of weeks times 25 equals the total number of cookies.
D. The number of weeks plus 25 equals the total number of cookies.

