# High Leverage Assessment - 8 (Linear Relationships) 

## **Teacher Note**

Please consider:

- Administering the entire grade level HLA three times a year (sometime during the months of September, January, and May).
- Only assign tasks that can be completed in one sitting (i.e., assign half the tasks on one day and the remaining tasks on another day).
- Remind students to show their thinking using models, numbers and/or words.
- Some students may not be ready to solve specific tasks. Please allow them to move on to the next question.
- Over time, you should see progress in the complexity of the strategies and/or models that all students use to demonstrate their mathematical thinking.


## **Purpose - To Share with Students**

"This assessment provides evidence of your growth throughout the school year.
In order to see growth, we have to know how you are thinking about these problems each time you see them. That means that we need to see your thinking in words, models, or numbers.

The strategies that you use to make sense of these problems is what demonstrates growth and is therefore most important to us.

You may use the tools that are always available to you in our classroom, but not a calculator or computer.

I may tell you to move on to another problem if I see sufficient evidence of your strategy. I may also ask a question to better help me understand your strategy. You may or may not have time to finish."

## High Leverage Assessment

Name: $\qquad$ Teacher: $\qquad$ Date $\qquad$

1. The table shows how much money Donna has saved at the end of each week.

The table continues in the same way for the rest of the year.

| Week | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Amount <br> in dollars | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 |

Write an equation to show how much money Donna saves any number of weeks.

## High Leverage Assessment

Name: $\qquad$ Teacher: $\qquad$ Date: $\qquad$
2. Phred is designing t-shirts for the math team. It costs $\$ 30$ to create a design and $\$ 4.50$ for each shirt printed.

Fill in the table below.

| Number of shirts | Total cost in dollars |
| :---: | :---: |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |


| 5 |  |
| :--- | :--- |


| 10 |  |
| :--- | :--- |

## High Leverage Assessment

Name: $\qquad$ Teacher: $\qquad$ Date: $\qquad$
3. The graph shows Mason's savings for 20 weeks.

A) How much did Mason save each week?
B) Mason continues to save the same amount each week.

Write an equation to show how much money Mason saves in any number of weeks.

## High Leverage Assessment

Name: $\qquad$ Teacher: $\qquad$ Date: $\qquad$
4. Jordan charges $\$ 25$ per hour to repair a cell phone.

Matt charges $\$ 20$ per hour to repair a cell phone screen plus $\$ 10$ for new parts.

Who will repair your phone? Show/Explain your reasoning.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

