$\qquad$
Notes
Date $\qquad$ Period $\qquad$

Recently, you read about the Walkathon and considered three possible pledge plans. If (A) represents the dollars owed and (d) represents the number of miles walked, we can express these plans with the equations below.

| Leanne's plan: $A=d \quad$ Gilbert's plan: $A=2 d \quad$ Anna's plan: $A=5+0.5 \mathrm{~d}$ |
| :--- | :--- |

Today, you will learn how to use a graphing calculator to help you answer questions like:

- What does Leanne's equation mean?
- Using Gilbert's plan, how much will a sponsor owe a student who walks 5 miles?
- Using Anna's plan, how far will a student have to walk to earn $\$ 17$ from each sponsor?

Refer back to the table and graph of Anna's pledge plan you made on Rates - Day 3.

1. The point $(14,12)$ is on the graph of Anna's plan. Write a question you could answer by locating this point.

2. For a sponsor to owe a student $\$ 17$ under Anna's pledge plan, how many miles would the student have to walk?
3. Chuck is trying to answer a question about Anna's pledge plan. He writes $A=5+0.5(28)$. What question is he trying to answer?
4. Daniel is trying to answer a question about Anna's pledge plan. He writes $46=5+0.5 \mathrm{~d}$. What question is he trying to answer?

Linear Relationships - Day 1 Notes

Name $\qquad$
Date $\qquad$ Period $\qquad$

Make a table and graph to determine whether or not the equation represents a linear function, and explain your answer.
5. $y=3 x$

| $x$ | $y$ |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


6. $f(x)=3^{x}$

| $x$ | $y$ |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


7. $y=2 x^{2}$

| $x$ | $y$ |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


8. For an equation to be linear, it must...
9. Circle the linear equations
$y=\frac{1}{4} x+2 z$
$7 d=5$
$x+3 r+9=4$
$x^{2}+3=y$
10. For a table to be linear, it must...

