

Equations, Tables and Graphs of Lines: How do they relate?

Write an equation, fill in the table and draw a graph of the given situation. Label the graph appropriately.

Description	Equation														
<p>At the North parking garage it costs \$5 to bring your car into the garage plus \$2 for every hour the car is parked.</p>	<div style="border: 1px solid black; height: 60px; width: 100%;"></div>														
Table	Graph														
<table border="1" style="border-collapse: collapse; width: 100%;"> <thead> <tr> <th style="width: 30%;">Hours</th> <th>Charge</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">0</td><td></td></tr> <tr><td style="text-align: center;">1</td><td></td></tr> <tr><td style="text-align: center;">2</td><td></td></tr> <tr><td style="text-align: center;">3</td><td></td></tr> <tr><td style="text-align: center;">4</td><td></td></tr> <tr><td style="text-align: center;">5</td><td></td></tr> </tbody> </table>	Hours	Charge	0		1		2		3		4		5		<div style="background-color: yellow; border: 1px solid black; width: 100%; height: 100%; display: flex; align-items: center; justify-content: center;"> </div>
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0															
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4															
5															

1. What is the y-intercept of the graph? How do you see the y-intercept represented in the equation?
2. What is the slope of the graph? How do you see the slope represented in the equation?

Fill in the table for each equation below and then **graph the points on graph paper**. Choose your values for x carefully. It will be beneficial to use a variety of **positive and negative numbers**.

3. $y = 0.5x$

x	y

4. $y = 2x - 3$

x	y

5. $y = -2x - 1$

x	y

6. $y = 2 - x$

x	y

7. How does the y-intercept of the graph relate to the equation and table?
8. How does the slope of the graph relate to the equation and table?