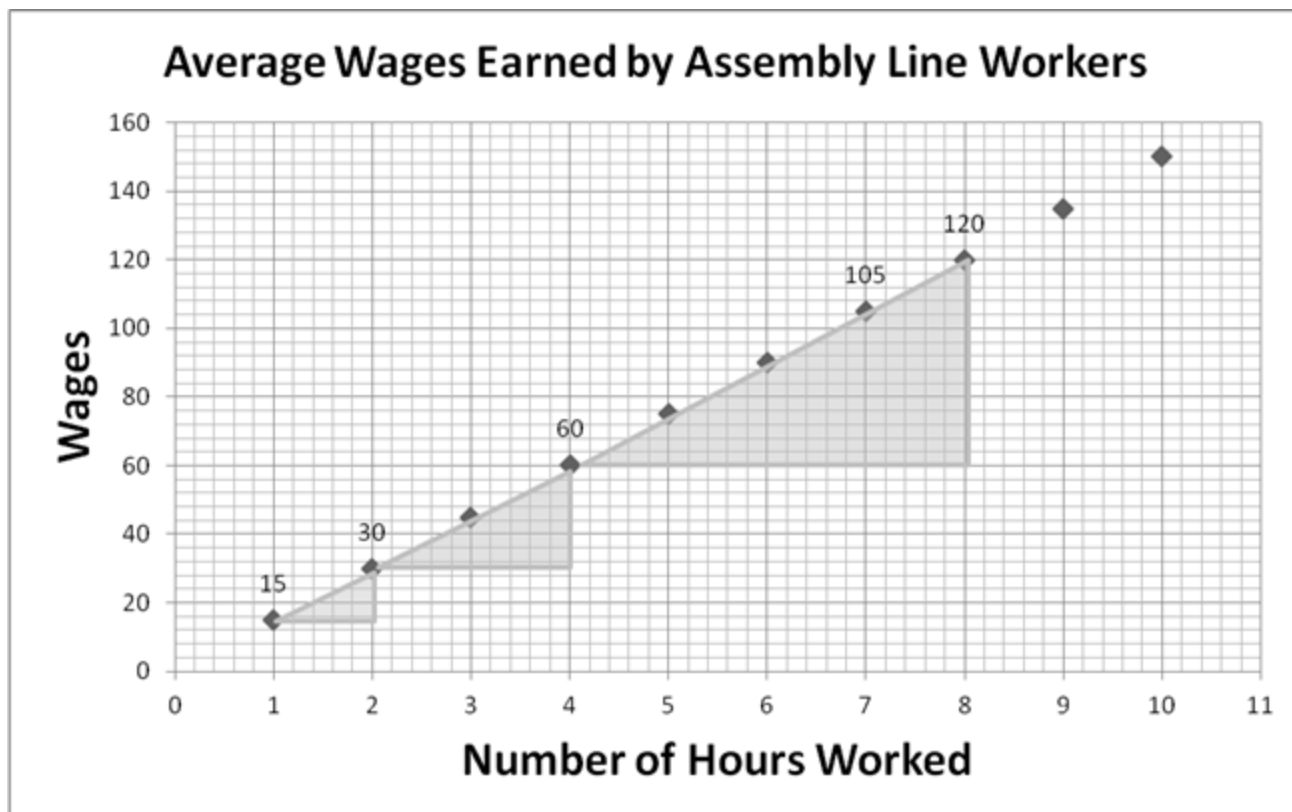## SE TASK: What's My Line?

Part 1: Average Wages

The data shown in the graph below reflects average wages earned by assembly line workers across the nation.

Average Wages Earned by Assembly Line Workers

a. What hourly rate is indicated by the graph? Explain how you determined your answer.

b. What is the ratio of the height to the base of the small, medium and large triangles? What patterns do you observe? What might account for those patterns?

c. The slope of a line is found by forming the ratio of the change in *y* to the change in *x* between any two points on the line. What is the slope of the line formed by the data points in the graph above? Explain how you know.

d. Write an equation for the earnings of the average assembly line worker.

e. According to the graph and equation, in a 40-hour week, how much will the average assembly line worker earn? How do you know?

f. With changes in the economy, the average wages can change. How would a decrease of $2 in the average change the equation and graph?

g. How would an increase $5 in the average change the equation and graph?

Part 2: Comparing Wages

The average hourly wages of different jobs are presented below. Using the information provided for each of the different jobs, compare the average hourly wage of these jobs with that of the assembly line worker in Part 1. For each job, include the hourly wage (unit rate), wages earned for 40 hours, and number of hours worked needed to earn $100.

<u>Plumber</u>

W = $20h, where *W* represents the wages earned and *h* represents the hours worked.

<u>Machinist</u>

Hours worked	Wages Earned
1	$ 18.50
2	$ 37.00
3	$ 55.50
4	$ 74.00
5	$ 92.50
6	$ 111.00
7	$ 129.50
8	$ 148.00
9	$ 166.50
10	$ 185.00