

Willie wants to earn \$1500 this summer doing landscaping. He knows he can't work more than 125 hours during the summer but would like to work less so he can take a course at a local college, spend time with friends and family, and enjoy his hobbies. He needs to choose how many hours he will work through the summer and then decide what he should charge his customers per hour so he can make \$1500¹.

Determine a number of different hours and rates that Willie can work and still earn \$1500. Fill out the table below with the different possibilities you find. Which option do you think he should choose? Why?

Hours	Rate (dollars/hour)	Total Pay
125		\$1500
		\$1500
		\$1500
		\$1500
		\$1500
		\$1500

Explain how a change in the number of hours Willie plans to work affects the rate he will have to charge customers to earn \$1500.

Be prepared to explain your work. Did you use any diagrams to understand the problem? Was there something else that you did that helped? What did you try that wasn't as useful? What were your "a-ha" moments? If you used division, which type or types of division situations were happening? How did you recognize the type or types? If you used a calculator or some other tool, when did you use it and how?

¹ This problem is based on an MCAS Open Response problem from Spring 2013.