

*AAT

Chapter 9: System of Linear Equations - Application (IC)

Name: Key
Date: _____ Period: _____

Jerome wants to get a summer job so he can buy a car before he goes away to college. There are 15 weeks before he leaves and Jerome plans to work 40 hours each week. However, he wants to have enough free time to have fun with his friends before he leaves. Jerome has three job opportunities:

Option A: His uncle has a landscaping business and will pay \$7.50 an hour but Jerome must buy his own equipment (lawnmower, hedge trimmer, shovels, wheelbarrow, etc) to use on jobs. The cost to buy all the equipment is \$500.

Option B: His aunt owns a pizza shop and has offered to hire him to deliver pizzas. She will pay him \$6.25 an hour. He can use the company car and would have no additional expenses.

Option C: His older brother runs his own web site design company and has offered Jerome an internship. The internship pays a lump sum of \$2000 prior to beginning work.

1. Write an algebraic equation for each job option.

$H = \# \text{ hours worked}$

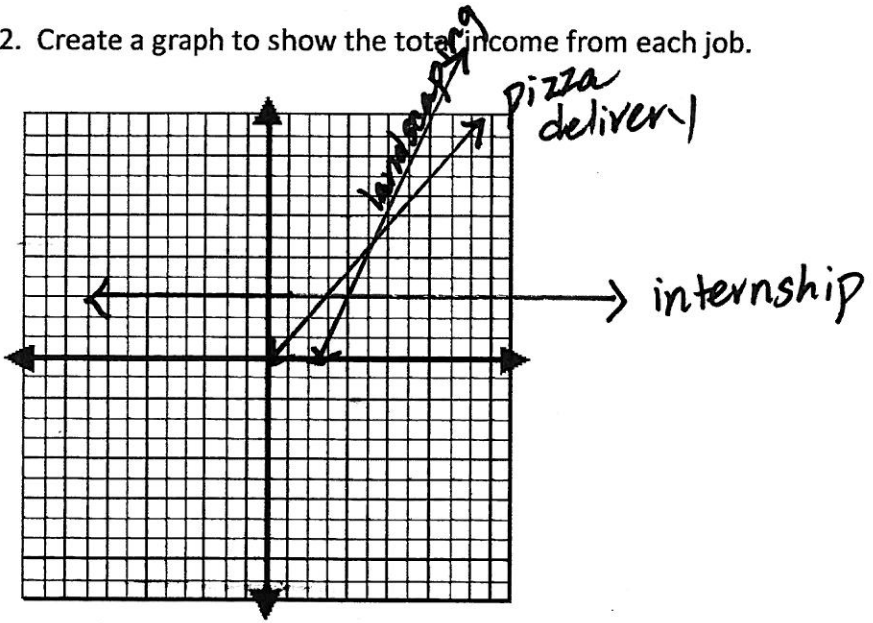
Option A: $I = 7.50H - 500$

$I = \text{total income}$

Option B: $I = 6.25H$

Option C: $I = 2000$

2. Create a graph to show the total income from each job.



3. Based on the number of hours Jerome plans to work over the summer, which job would provide the greatest income? *IF Jerome works up to 320 hours → he would earn most @ internship*
IF he works between 320 & 400 hrs ⇒ he would earn most at pizza delivery
IF he works more than 400 hrs ⇒ he would earn most from landscaping

4. What job would you choose if you were Jerome? Explain.

any IF I were Jerome, I would choose pizza delivery. I could work 40 hrs/week for 10 weeks & have time w/ friends ~ plus I could make \$ from tips.