



## Activity: Job Offers



### Who is right?

What a great week for Armand! He was offered both part-time jobs for which he had applied. Now he needs to decide which one to take. He told his partner, Cheri, that LaserLink offered to pay him \$200/week whereas QuinStar's offer was to pay \$150/week plus a \$2,000 sign-on bonus that he would get before he even started working.

"I am going to take the QuinStar job," he said, "because I do not intend to have to hold a second job for more than a year."

Cheri replied, "I don't know, Armand. I think you are being foolish. In a year, you would make more money at LaserLink. I bet you would make more money at LaserLink in six months!"

"No way! I will prove it to you." Armand shouted.

Who is right, Armand or Cheri?

Show how you know.

## Would They Ever Be the Same?

**The Situation:** Armand would start out making more money at QuinStar; but by the end of the year, he would have made more money working for LaserLink.

1. **The Question:** Is there ever a point in time when the accumulated earnings from each job would be the same?

Make a table and a graph to solve the problem. Start with whichever one you choose, but make both. Below are some suggestions for how to show the accumulated pay for each job. Use separate pieces of paper for the table and the graph.

### Table

Make a table showing weeks worked and pay accumulated for each job. Remember to account for the sign-on bonus that QuinStar would pay before the first week's pay. *Note:* You should have entries that cover up to 52 weeks, but you do not need an entry for every week. You may also make a three-column table with entries for both jobs side-by-side for easy comparison.

### Graph

Make a graph. Use increments of two weeks across the  $x$ -axis (2, 4, 6 weeks, etc.), and use increments of \$500 on the  $y$ -axis. Plot a few points for each job. Use different colors for the two jobs. For each job, draw the line that represents the relationship between that job's pay and the weeks worked.

2. Write a rule in words and/or in symbols to show how much money Armand would make at LaserLink for any number of weeks he worked.
3. Write a rule in words and/or symbols to show how much money Armand would make at QuinStar for any number of weeks he worked.
4. Describe what you notice by answering these questions about the situations:
  - a. What stays the same?
  - b. What changes?
  - c. What stands out for you?