

Name _____
Period _____

Algebra 1 More of the Real-World

The following questions do not have the parts 'a' – 'f', but you may use the format from the previous problem to help you out.

1. Fred's plumbing charges \$50.00 for a service call plus \$40.00 per hour.
Rosa's plumbing charges \$74.00 for a service call plus \$34.00 per hour.

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| a. Define a variable for the number of hours of a plumbing job, then write an equation and solve to find the number of hours of plumbing work for which these two companies will charge the same amount . | b. Using the number of hours found in part 'a', find the cost of the plumbing job. |
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Write a paragraph describing when it would be better to use Fred's, and when it is better to use Rosa's.

2. Mary has been hired as a sales associate at a car dealership. She is offered two pay options:

Option 1: \$2750 base pay, plus \$250 for each car she sells.

Option 2: \$1250 base pay, plus \$500 for each car she sells.

a. Find the amount of sales for which Mary will earn the same amount of income with both plans.

(Hint 1: Define a variable for the amount of sales.)

b. Using the amount of sales that you found in part 'a', find her income.

Write a paragraph describing when it would be better to choose Option 1, and when it is better to choose Option 2.