

Word Problem #1

You can work a total of no more than 41 hours each week at your two jobs. Housecleaning pays \$5 per hour and your sales job pays \$8 per hour. You need to earn at least \$254 each week to pay your bills. Write a system of inequalities that shows the various numbers of hours you can work at each job.

Let x = # of hours housecleaning

Let y = # of hours working sales

Hours: $x + y \leq 41$

Money: $5x + 8y \geq 254$

Word Problem #2

Fuel x costs \$2 per gallon and fuel y costs \$3 per gallon. You have at most \$18 to spend on fuel. Write and graph a system of linear inequalities to represent this situation.

Let $x = \#$ of gallons of fuel x

Let $y = \#$ of gallons of fuel y

Price: $2x + 3y \leq 18$

Gallons of x: $x \geq 0$

Gallons of y: $y \geq 0$

Word Problem #3

A salad contains ham and chicken. There are at most 6 pounds of ham and chicken in the salad. Write and graph a system of inequalities to represent this situation.

Let $x = \#$ of pounds of ham

Let $y = \#$ of pounds of chicken

Total Pounds: $x + y \leq 6$

Pounds of ham: $x \geq 0$

Pounds of chicken: $y \geq 0$

Word Problem #4

Mary babysits for \$4 per hour. She also works as a tutor for \$7 per hour. She is only allowed to work 13 hours per week. She wants to make at least \$65. Write and graph a system of inequalities to represent this situation.

Let x = # of hours of babysitting

Let y = # of hours of tutoring

Hours: $x + y \leq 13$

Money: $4x + 7y \geq 65$