



Unit 4

Solving Inequalities (Alternate Unit Portfolio)





You want to start a summer business to earn money! What will you do? You have to consider how much money you can afford to invest in this business, how much it will cost you to make each item, and how much you're going to charge for each item. Research something that would be reasonable to make and sell with the startup investment you have determined.

Task 1: Cost

a. What is the total amount of money you are willing to invest in your business?

Total amount you will invest: _____.

b. What item or service are you going to make/provide and sell?

- EX: *Lemonade Stand to sell cups of lemonade*

Item or Service: _____.

c. How much will it cost you to make each item?

Cost to make each item: \$_____.

d. Write an inequality that represents the number of items you can make based on your cost, without going over your spending limit.

Inequality: _____.

e. Solve this inequality.

SHOW YOUR WORK:

f. In complete sentences, explain what your solution is telling you.

Task 2: Profit

a. How much will you sell each item for or charge for each service?

Price of each item you sell: \$_____.

b. Determine what your total profit would be if you sell all of the products/provide all services you can while charging the price above.

SHOW YOUR WORK:

c. In complete sentences, explain whether your business was profitable. Why or why not?

Task 3: Time



- a. Ms. Johnson has a side business where she makes doggie tug toys with strips of material. It takes her 20 minutes to make each toy. If she has only 240 minutes a day to make doggie toys, at most how many toys can she make each day?

Write an inequality to represent her time constraint.

Inequality: _____.

- b. Solve your inequality:

SHOW YOUR WORK:

- c. In complete sentences, explain what your solution is telling you?

You are Done!!!!



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