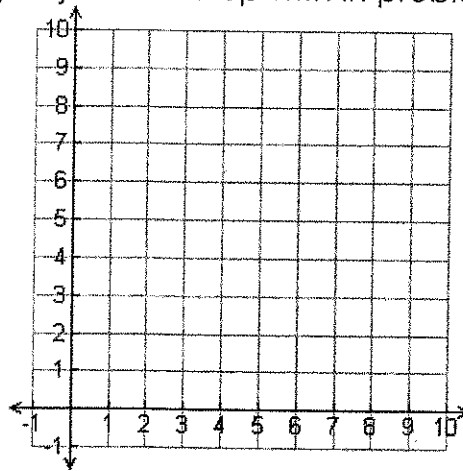


Constraints in Decision Making – Concession Stand Dilemma

Jimmy is at a Lil Hawks basketball game watching his younger brother Johnny play. He is hungry and asks his mom for some money. She is gracious and gives him \$10 to spend on all 3 of them. The concession stand is selling hot dogs for a dollar and hamburgers for \$2. She tells him not to buy a drink since she already has one. Jimmy gets to the counter and starts wondering what combinations he can get for his \$10.

- 1) Write an equation using 2 variables to represent Jimmy's purchasing decision. Define your variables. d = number of hot dogs h = number of hamburgers
- 2) Use your equation to figure out how many hot dogs he can buy if he gets 3 hamburgers.
- 3) How many hot hamburgers can he get if he buys 2 hot dogs?
- 4) Solve your equation in terms of the number of hot dogs, d .
- 5) Graph the equation you just came up with in problem #4.



- 6) Find the minimum and maximum number of hot dogs he can buy. Write your answer as an inequality in terms of d , the number of hot dogs.
- 7) Find the minimum and maximum number of hamburgers he can buy. Write your answer as an inequality in terms of h , the number of hamburgers.
- 8) Identify the points representing your answers to problems 2 and 3 on your graph.