

Can Graphs Tell a Story?

Graphing Systems of Equations

Name _____

Date _____ Period _____

Kevin, Justin, and LeAnne want to join a local health club. The club offers a “pay-as-you-go” plan and two membership options.

Pay-as-you-go Plan: \$10 per visit

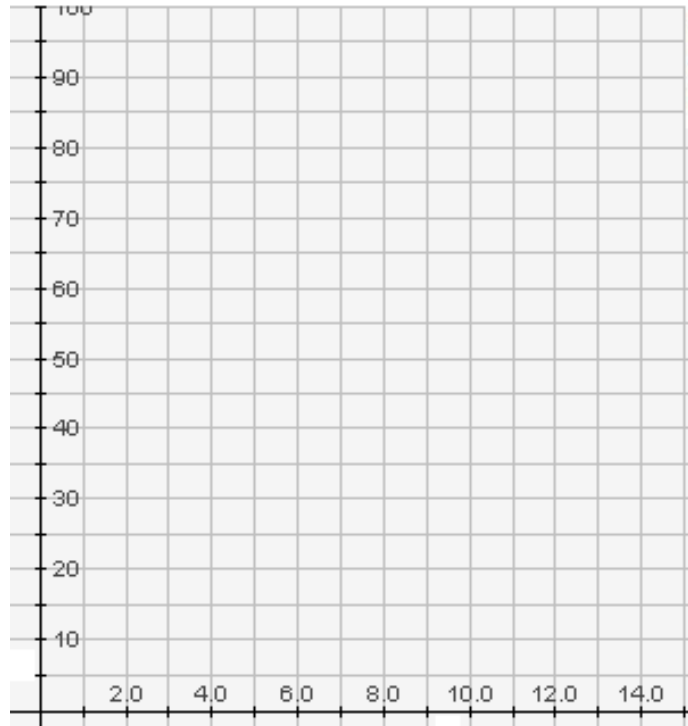
Associate Member: \$20 per month plus \$5 per visit

Full Member: \$75 per month (unlimited visits)

Using the x -axis for visits per month and the y -axis for monthly cost, write linear equations for each of the three membership plans.

Graph each equation in the coordinate plan provided. Label the axes appropriately.

Health Club Membership



For Discussion: Kevin plans to visit 2-3 times per month. Justin plans to visit about twice a week. LeAnne plans to visit every other day. Suggest an option for each person. What about the graph lead you to your suggestion?

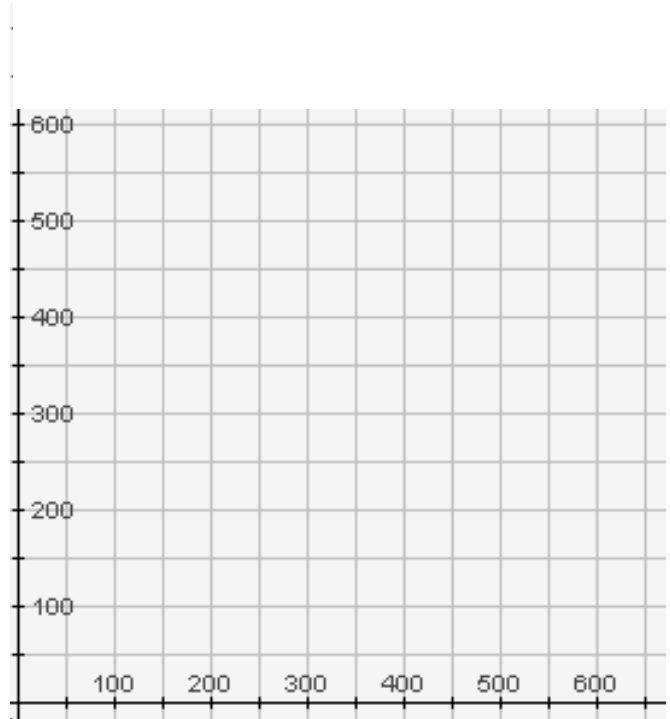
Tickets for the talent show were priced at \$6 for adults and \$4 for students. The fundraising committee counted exactly \$2100 in ticket sales for the event. The ushers at the entrance counted exactly 425 people entering the event. How many of the attendees were adults and how many were students?

Let x represent the number of adult tickets and y represent the number of student tickets.

a) Write a linear equation showing the money made from ticket sales to adults and students.

b) Write a linear equation showing the attendance of adults and students at the show.

c) Graph both equations in the coordinate plane provided. Label the axes appropriately. ***Be as accurate as you can when graphing the lines.***



d) What does the intersection of the lines tell you?

e) Can you **ESTIMATE** the number of adults and students that attended?