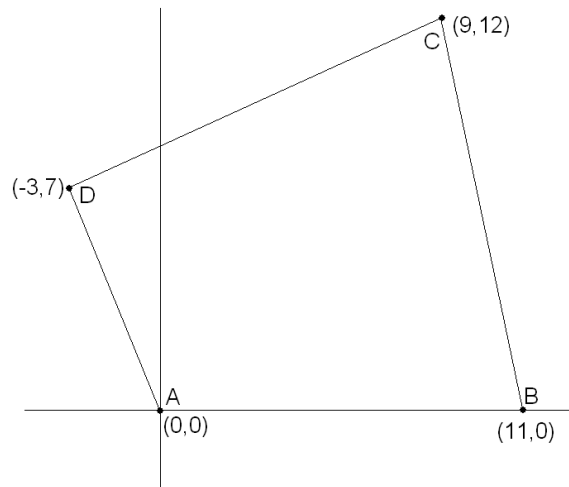


Huddle 2005

1. When a certain four-digit decimal number is multiplied by 4, its digits are reversed. What is this number?

2. Consider the four points A, B, C, D in the plane as shown below. Find the coordinates of the point P that minimizes the total distance

$$PA + PB + PC + PD.$$



3. If you were to write out all of the integers from 1 to 1,000,000,000 in their usual decimal form, how many times would you write the digit 7?

4. Pat, Quincy and Rose agree to play a series of games of singles tennis. In each game, the person who won plays the person who sat out the previous game. At the end of the series, Pat has played in 12 games and Quincy has played in 25 games. Who lost game number 7?