DOTS AND SQUARES

I expected you have often played this game. I only mention it because there is a point in it that everyone seems to overlook. I mean the game where you start by drawing dots in a square pattern, and then you and a friend in turn join any dot to a neighboring dot.

After three moves each might look like this.

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 .   .
 .   .
 .   .
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When you complete a square, you write your initial in it, and you get an extra turn. Whoever gets the most squares, wins.

If in a game this position were reached and you had to move, you would get all the squares, because at each move you would be able to complete a square and thus earn an extra move.

Now for the point people miss. Suppose this position came, and it was your friend's move.

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A B C D E
G H I J K
L M N O P
Q R
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Your friend has already won the squares marked /// /// 7. The other letters A, B, C, D, etc. are just so that I can name the dots to you.

Now, I know what would happen. Your friend would draw the line AG. You would take the four squares in the top row, and then draw (perhaps) L, Q and your friend would take the seven remaining squares.

Thus your friend would win by 12 squares to 4.

Really, after your friend had drawn AG you ought the win. How?

SOLUTION

You should draw BH and CI. This gives you two squares. Now, do not draw DJ but instead draw EK. Now your friend has to move. Your friend can draw DJ, winning two squares, but will then have to make another move, and present you with the seven squares in the middle. Thus you will win 9-7. If your friend does not draw DJ, but makes any other move, you will collect the seven squares in the middle, and then draw DJ yourself. This makes you win 11-5.