

The Job Fair

A college is hosting a job fair where students can meet with companies, be interviewed, and be hired by those companies on the spot. One of the companies at this fair is looking to hire an intern...but they want to get this right because some of their most valuable long-term employees started as interns.

The problem is, the way the job fair is set up, you can't wait until all the interviews are done and then make the hire. You either hire the candidate on the spot at conclusion of their interview, or you pass on that candidate. Fortunately, the company has a robust candidate scoring which is very refined. This gives you excellent information about each candidate's score, so you have a way to rank each candidate that you see compared to the others that you have seen. All interviews are scheduled at the start of the day so you do know exactly how many candidates you will see.

You have been instructed by management that the goal is to hire the best candidate...not a good candidate, the best candidate. They understand that this is hard to do because of the structure of the job fair. Devise a strategy for improving (to the extent possible) the chances of hiring the best candidate.

From the information given above, you know (or can assume):

- You have perfect information about each candidate in terms of a numerical score.
 - You have no information about what a good score is entering the day.
 - You learn the score for each candidate during their interview.
 - No two candidates will have the same score.
 - At the end of each interview you must let the candidate know that you are hiring them or that you will not be hiring them. This decision is final.
 - You know how many candidates you will be interviewing.
 - You will complete all interviews (even if you make a hire before the last interview) so you will know the score for each candidate and you will know whether you hired the best candidate.
 - Winning the hiring game means you hired the best candidate. Not hiring the best candidate is considered losing.
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Assuming that there are n candidates, devise a hiring strategy...and if possible, determine the probability of hiring the best candidate with this strategy.

Candidates	Strategy	Probability of hiring best candidate with this strategy
1	With only one candidate the only possible strategy is to hire that person.	1.00
2	There are two possible strategies each with the same probability: <ul style="list-style-type: none"> • Hire the first candidate. • Don't hire the first candidate; hire the second. 	.50
3		
4		
5		
10		
100		
n		

Do this for as many rows in the table as you can. Show or provide the work that supports your answers.