3. The Biased Interview Strategy

A company interviews **7 candidates** one at a time in the fixed order:

A, B, C, D, E, F, G

Each candidate has a unique hidden ability score from **1 (worst)** to **7 (best)**. After each interview the hiring manager learns **only the relative ranking** of the candidates seen so far (for example: "C is better than A and B so far"), but **not** absolute scores. After each interview you must decide **immediately** to **hire** that candidate or **reject** and move on — once rejected, a candidate cannot be recalled. The goal is to **maximize the probability** of hiring the overall best candidate (score 7).

Special condition: the first five candidates **A–E** arrive in **strictly increasing quality order** (i.e., A < B < C < D < E). The last two candidates (**F and G**) arrive in a **random order** relative to each other and relative to A–E. All rank assignments consistent with this rule are equally likely.

Deliverable (what to write as your answer)

In **no more than 150 words**, do **both** of the following:

1. **State clearly which single candidate you will hire (or the simple rule you will follow)** — e.g., "Hire candidate X on arrival" or "Reject until Y, then hire next best-so-far."
2. **Give a short, rigorous justification** (concise proof or counting argument) explaining **why that choice maximizes the probability** of selecting the overall best candidate. Your justification should be logically complete (no hand-wavy phrases) and must rely only on the information given.