About those tricky-wording questions:
"Roll a fair die 3 times"

1. "The chance that all are □ 's."

We need □ □ □ to win, anything else loses.

2. "The chance that all are not □ 's."

We need something like □□ □□ □ to win - every one is not a □. Just one □ would make us lose.

3. "The chance that not all are □ □ 's."

This time, □□ □□ □ loses, because "all are □ 's," but □□ □□ □ wins, as does □□ □□ □, as does □□ □□ □, because while some of the dice may be □ 's, not all of them are.