What if state is calculated lazily and it doesn't change?

State didn't change => shallow render

Note that React may still need to render that specific component again before bailing out. That shouldn't be a concern because React won't unnecessarily go "deeper" into the tree. If you're doing expensive calculations while rendering, you can optimize them with useMemo.

https://reactjs.org/docs/hooks-reference.html#bailing-out-of-a-state-update