Online homework provides particular promise for supporting student learning because technology allows for multiple attempts, immediate feedback, hints, and other 'help' features. I will report on the results from two studies that focused on how students leverage some of these benefits. In the first study, I investigated the nature of student activity while doing online homework. I will report on how students leveraged multiple tries as a form of formative assessment that guided their learning and sense-making. In the second study, I explored how students used the 'see similar example' feature in an online homework platform and how that use reflected their learning goals. Findings indicate students used solutions to similar problems to troubleshoot, to check if they are on the right track, and to see the steps to solve a problem or the form of the answer. Students also sought to unpack the reasoning in solution steps, used solutions as templates for solving their own problems, and sometimes simply copied answers. Students’ goals included simply completing the homework, maximizing their homework score, and understanding the content. I will discuss the implications of these findings for instructors seeking to improve students’ learning from online homework. (Received July 30, 2020)