This talk describes the “Just-In-Time” assignment type for the online open source homework platform WeBWorK. This new assignment type allows instructors to add dynamic review elements to homework assignments. Individual homework problems can be augmented with sub-problems designed to deliver review content or give students additional practice. These sub-problems are only presented to students if they are unsuccessful in completing the original problem. This allows instructors to create homework sets which adapt to students needs by presenting extra material only for those topics with which the student needs help. This assignment type was developed as part of the the NSF grant *Bridging Mathematics Contents to Engineering Contexts; Just-In-Time Assessment and Review Modules*. (Received September 21, 2015)