1988- N_Koblitz-Problems that Teach the Obvious but Difficult. *The American Mathematical Monthly*. 95(3): 254-257.

See https://www.jstor.org/stable/2323630?refreqid=excelsior%3A96a690039d07c61859bd9520dff82276 .

Four problems are presented and two of them involve differential equations. These involve projectile motion in one and two dimensions.

The conclusion reads and merits repeating for us, “These four problems illustrate some aspects of the transition from mechanical `pure-math’ problem solving to "real-world" problem solving: the value of choosing a convenient setup of the coordinate system; the need to recognize basic concepts, such as the derivative, when they are disguised in non-mathematical words; the importance of determining at the very beginning which letters stand for constants and which letters stand for variables; the usefulness of breaking up a problem into bite-sized chunks. This might all seem obvious to us; but unless students are drilled with problems that are designed to illustrate these features, they are likely to have trouble using the material from their math courses in their subsequent work in other fields.”

Keywords: projectile, projectile motion, model, differential equation