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**Dave Witte Morris\*** (Dave.Morris@uleth.ca). *Survey of invariant orders on arithmetic groups*. Preliminary report.

At present, there are more questions than answers about the existence of an invariant order on an arithmetic group. (By “order,” we mean a transitive binary relation  $\prec$ , such that  $x \prec y \Rightarrow y \not\prec x$ .) We will discuss four different versions of the problem: the order may be required to be total, or allowed to be only partial, and the order may be required to be invariant under multiplication on both sides, or only on one side. One version is trivial, but the other three are related to interesting conjectures in the theory of arithmetic groups. (Received June 26, 2011)