This is a dependency graph of propositions from the first book of Euclid’s Elements. We say that a proposition \( A \) depends on \( B \) iff proposition \( B \) is necessary in the proof of proposition \( A \). In the dependency graph below, this will be denoted by an arrow starting at \( A \) and pointing at \( B \).

Figure 1 is a dependency graph of all propositions in the first book. Figure 2 is a dependency graph of all propositions that state a relation between two objects, while Figure 3 is a dependency graph of all propositions that state the existence of an unmarked straightedge and compass construction of something.

The dependencies were gratefully extracted from Richard Fitzpatrick’s edition of Euclid’s Elements. The graph itself was written in DOT and converted to \( \text{pslatex} \) with \text{dot2tex}. The motivation for this graph was from Mariusz Wodnicki’s Spring 2007 History of Mathematics course at the University of California, Berkeley. Corrections and comments are always appreciated at thomson@ocf.berkeley.edu.
Figure 1: Dependency graph of Propositions from Book I of Euclid's *Elements*. 

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Figure 2: Dependency graph of Relation Propositions from Book I of Euclid’s *Elements*. 

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Figure 3: Dependency graph of Construction Propositions from Book I of Euclid's *Elements*.