

*Introduction to Engineering
Engineering Ethics*

30 Points

For each of the three cases, answer the questions listed at the end of each case, and support your answer using the Code of Ethics. A single word answer such as yes, no, or nothing is not sufficient.

Case 1

Tenants in an apartment building sue the owners of the building in order to force them to repair a number of annoying, but not dangerous, problems. The owners' attorney hires Duchane, a structural engineer, to inspect the building and testify on behalf of the owner. Duchane discovers serious structural problems in the building, which are an immediate threat to the tenants' safety. These problems, however, are not mentioned in the tenants' suit. Duchane reports this information to the attorney, who tells Duchane to keep this information confidential because it could affect the lawsuit. Duchane complies with the attorney's decision.

Was it ethical for Duchane to conceal the information concerning the safety-related defects?

How do an engineer's professional obligations to preserve client confidentiality differ from those of a lawyer?

What could Duchane have done instead?

Case 2

Lindsay, an engineer, is retained by the County government to perform a study and recommend the best location for a new County power facility. The choices have been narrowed down to two parcels of land. The first parcel is undeveloped and is owned by a person who plans to build a second home there. The second parcel, a developed piece of land, is owned by Lindsay. Lindsay informs the County of his ownership of the second parcel of land, then goes on to recommend that the County build on the first parcel for the following reasons: (1) it is a better location from an engineering standpoint, and (2) it would be cheaper to acquire the land. The County accepts Lindsay's study.

Should the County have accepted Lindsay's recommendation, knowing of Lindsay's property ownership?

Is Lindsay acting ethically in agreeing to do the study?

Does Lindsay's disclosure of his ownership of the land prevent a conflict of interest?

Would anything change your judgment of the scenario?

Case 3

Elton, an engineer, is conducting graduate research at a major university. In order to complete his graduate studies and produce an advanced degree, Elton must develop a research report. As a part of the effort to develop his report, Elton compiles a vast amount of data relevant to his subject. The vast majority of data obtained by Elton strongly support not only his report's conclusion, but also the conclusions of others. However, a small proportion of the data differs from the data consistent with Elton's conclusion. Convinced that his report is sound however, and concerned that the inclusion of the anomalous data would only detract from the essentials of the report, Elton does not include these figures in the report.

Was Elton guilty of falsification of research results in omitting the anomalous data?

What type of additional information would be ethically relevant to this case?

What could Elton have done instead?