MATH 348 Reading Questions

Section 6.1 NAME

Read the Interlude on page 89 and Section 6.1 of our textbook, and answer the following questions. This sheet will be checked for completeness at the beginning of the next class.

1. On page 92 of the text, how does $f_t(x)$ interpolate between the functions $f(x) = 1 + x^2(x-2)^2$ and a constant function?

2. What does it mean for maps f and g to be *homotopic*?

3. Summarize Example 6.2 in your own words.

4. What is the definition of a **convex** space?

5. If f and g are homotopic, and maps g and h are homotopic, then are f and h homotopic? Why or why not?

6. Summarize Proposition 6.9 in natural language, without so many mathematical symbols.