Chapter 6 Review Questions

1. State from memory the definition of the Laplace transform of a function $f(t)$.

2. State from memory the formaulas for the Laplace transform of the first and second derivatives of a function $f(t)$.

3. What property of the Laplace transform makes it useful for solving ordinary or partial differential equations?

4. How can you exploit the Laplace transform to obtain information about the solution of an ordinary or partial differential equation problem without actually finding the complete solution?

5. For what problems might Laplace transform be superior to separation of variables as a solution method?