U6 Chapter 9

Differentiation

Chapter Overview

1. Differentiate trigonometric, exponential and log functions.

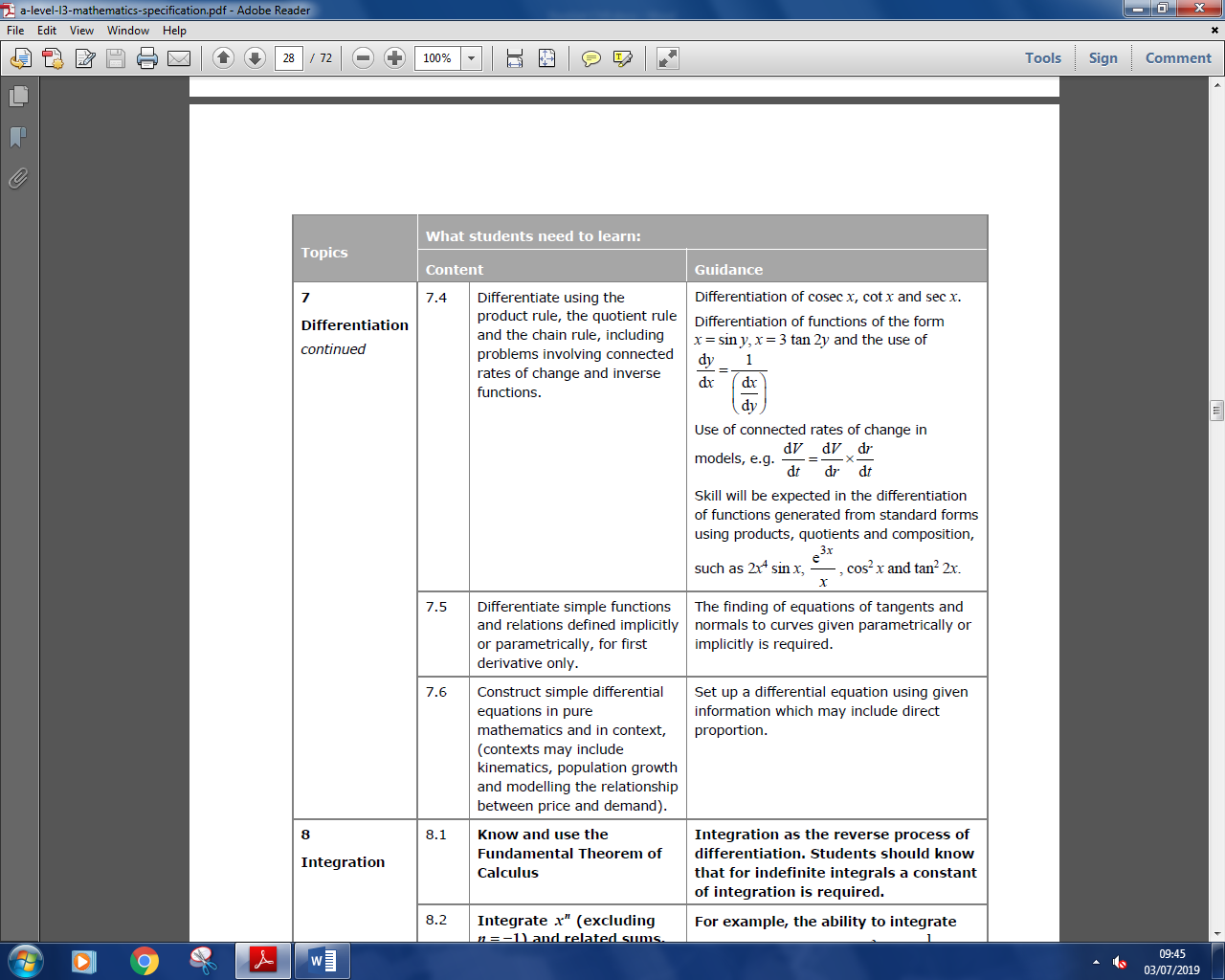
2. Use chain, product and quotient rules.

3. Differentiate parametric equations.

4. Implicit Differentiation

5. Rates of change



**Differentiating trigonometric functions**

You need to be able to differentiate sin x and cos x from first principles.

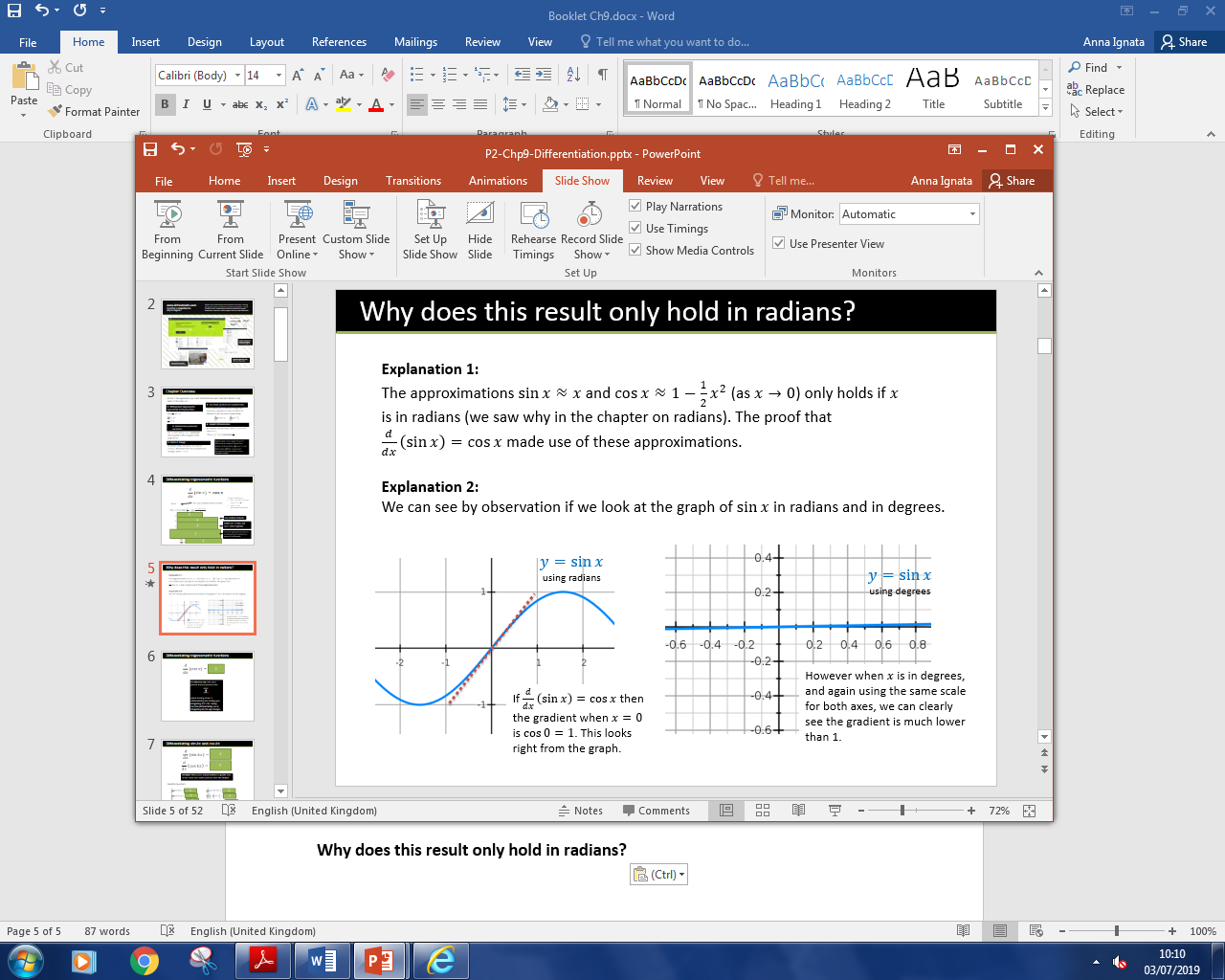
**Example 1 Prove, from first principles, that the derivative of sin x is cos x.**

Things of helpfulness:

* As and

**If then**

**Why does this result only hold in radians?**



**Quickfire Questions:**

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**Example**

[Textbook] A curve has equation . Find the stationary points on the curve in the interval .

**Test Your Understanding**

A curve has equation . Find the stationary points on the curve in the interval .

Exercise 9A Page 234