

**Name:** \_\_\_\_\_ **Section:** 201 (starts at 08:00)  
202 (starts at 09:35)

Let  $f(x) = \sin(x) \cos(x)$ .

1. (3 points) What is degree 5 Taylor polynomial for  $f(x)$  around  $x = 0$ ?
2. (4 points) Approximate  $f(1/10)$  within 0.001
3. (3 points) What is the Taylor series for  $f(x)$ ?