

**Mathematics 1120H – Calculus II: Integrals and Series**  
TRENT UNIVERSITY, Winter 2020

**Quizzes**

**Quiz #1.** *Thursday, 16 January [15 minutes]*

Compute each of the following integrals.

1.  $\int x^2 \ln(x) dx$  [2.5]      2.  $\int_0^1 \frac{1}{(1+x)\sqrt{x}} dx$  [2.5]

**Quiz #2.** *Thursday, 23 January [15 minutes]*

1. Evaluate  $\int_0^1 \frac{x}{\sqrt{9x^2 + 16}} dx$ . [5]

**Quiz #3.** *Thursday, 30 January [20 minutes]*

Compute *one* (1) of the following integrals.

1.  $\int \frac{x+1}{\sqrt{4x^2 - 8x}} dx$  [5]      2.  $\int \frac{2x^2 + 3}{(x+1)(x^2 + 4)} dx$  [5]

**Quiz #4.** *Thursday, 6 February [20 minutes]*

1. Evaluate  $\int_0^\infty \frac{1}{(x+1)^2(x+2)} dx$ . [5]

**Quiz #5.** *Thursday, 13 February [10 minutes]*

1. Find the arc-length of the curve  $y = \frac{2}{3}x^{3/2}$ , where  $0 \leq x \leq 3$ . [5]