

MATH 105 Quiz # 5 Monday Mar 14, 2016
(4 questions, two sides, 15 minutes)

FAMILY NAME:
STUDENT NUMBER:

Work must be shown for full marks.

1. Compute the indefinite integral

$$\int f'(x)dx$$

2. Compute

$$\frac{d}{dx} \int_{x^2}^2 e^{t^2} dt$$

3. First express the following improper integral as a limit, then calculate it.

$$\int_0^4 \frac{1}{\sqrt{x}} dx$$

4. Solve the differential equation $t y' = y^{1/2}$ for $y(t)$ when $y(1) = 4$. You may assume $t \geq 1$.

MATH 105 Quiz # 5 Monday Mar 14, 2016
(4 questions, two sides, 15 minutes)

FAMILY NAME:
STUDENT NUMBER:

Work must be shown for full marks.

1. Compute the indefinite integral

$$\int f'(x)dx$$

2. Compute

$$\frac{d}{dx} \int_{2x}^2 e^{t^2} dt$$

3. First express the following improper integral as a limit, then calculate it.

$$\int_0^1 \frac{1}{\sqrt{x}} dx$$

4. Solve the differential equation $t y' = y^{1/2}$ for $y(t)$ when $y(1) = 9$. You may assume $t \geq 1$.