

Math 102 - 17

Quiz # 1 **A**

Sem 052

Q1 Evaluate $\int \tan^2 x \, dx =$

Q2 Evaluate $\int x\sqrt{x+2} \, dx =$

Q3 Evaluate $\int \frac{e^x}{1+e^x} \, dx =$

Math 102 - 17

Quiz # 1 **B**

Sem 052

Q1 Evaluate $\int \cot^2 x \, dx =$

Q2 Evaluate $\int x\sqrt{x+3} \, dx =$

Q3 Evaluate $\int \frac{\sin x}{1+\cos x} \, dx =$

Math 102 - 21

Quiz # 1 **B**

Sem 052

Q1 Evaluate $\int \frac{1}{\tan^2 x} \, dx =$

Q2 Evaluate $\int 2x\sqrt{x-1} \, dx =$

Q3 Evaluate $\int \frac{e^{2x}}{1+e^{2x}} \, dx =$

Math 102 - 21

Quiz # 1 **A**

Sem 052

Q1 Evaluate $\int \frac{1}{\cot^2 x} \, dx =$

Q2 Evaluate $\int x\sqrt{x+3} \, dx =$

Q3 Evaluate $\int \frac{e^x}{1+e^{2x}} \, dx =$

Math 102 - 17

Quiz # 2 **A**

Sem 052

Q1 Evaluate $\sum_{k=1}^n \left(\frac{5}{n^2} + \frac{3k^2}{n} \right)$

Q2 Evaluate $\int_{-2}^2 (2 + 3\sqrt{4-x^2}) \, dx =$

Q3 Evaluate the following limit as a definite integral over the assigned interval

$\lim_{n \rightarrow \infty} \sum_{k=1}^n \frac{\pi}{4n} \sec^2\left(\frac{\pi k}{4n}\right), [0, \frac{\pi}{4}]$

Math 102 - 17

Quiz # 2 **B**

Sem 052

Q1 Evaluate $\sum_{k=1}^n \left(\frac{2k}{n^3} + \frac{2k^2}{n^2} \right)$

Q2 Evaluate $\int_0^3 (5 + 2\sqrt{9-x^2}) \, dx =$

Q3 Evaluate the following limit as a definite integral over the assigned interval

$\lim_{n \rightarrow \infty} \sum_{k=1}^n \frac{\pi}{2n} \sin\left(\frac{\pi k}{2n}\right), [0, \frac{\pi}{2}]$

Math 102 - 21

Quiz # 2 **A**

Sem 052

Q1 Evaluate $\sum_{k=1}^n \left(\frac{3k^2}{n} - \frac{5k^3}{n^2} \right)$

Q2 Evaluate $\int_0^2 (2 + 5\sqrt{4 - x^2}) dx =$

Q3 Evaluate the following limit as a definite integral over the assigned interval

$\lim_{n \rightarrow \infty} \sum_{k=1}^n \frac{\pi}{4n} \sec^2\left(\frac{\pi k}{4n}\right), [0, \frac{\pi}{4}]$

Math 102 - 21

Quiz # 2 **B**

Sem 052

Q1 Evaluate $\sum_{k=1}^n \left(\frac{2k}{n} - \frac{3k^3}{n^2} \right)$

Q2 Evaluate $\int_{-3}^3 (2 - 3\sqrt{9 - x^2}) dx =$

Q3 Evaluate the following limit as a definite integral over the assigned interval

$\lim_{n \rightarrow \infty} \sum_{k=1}^n \frac{\pi}{3n} \cos\left(\frac{\pi k}{3n}\right), [0, \frac{\pi}{3}]$

Math 102 - 17

Quiz # 3 **A**

Sem 052

Q1 Evaluate $\int_1^2 \frac{1}{\sqrt{x}\sqrt{4-x}} dx$

Q2 Let $F(x) = \int_0^x \frac{\sec^2 t}{t^2+3} dt$, find $-F(0)$, $-F'(0)$, $-F''(0)$

Q3 Find the limit $\lim_{h \rightarrow 0} \frac{1}{h} \int_x^{x+h} \tan t dt$

Math 102 - 17

Quiz # 3 **B**

Sem 052

Q1 Evaluate $\int_0^1 \frac{1}{\sqrt{x}(4+x)} dx$

Q2 Let $F(x) = \int_0^x \frac{\cos^2 t}{t^2+1} dt$, find $-F(0)$, $-F'(0)$, $-F''(0)$

Q3 Find the limit $\lim_{h \rightarrow 0} \frac{1}{h} \int_x^{x+h} \csc t dt$

Math 102 - 17

Quiz # 3 **B**

Sem 052

Q1 Evaluate $\int_0^1 \frac{1}{\sqrt{x}(4+x)} dx$

Q2 Let $F(x) = \int_0^x \frac{\cos^2 t}{t^2+1} dt$, find $-F(0)$, $-F'(0)$, $-F''(0)$

Q3 Find the limit $\lim_{h \rightarrow 0} \frac{1}{h} \int_x^{x+h} \csc t dt$

Math 102 - 21

Quiz # 3 **A**

Sem 052

Q1 Evaluate $\int_e^{e^2} \frac{\ln x}{x} dx$

Q2 Let $F(x) = \int_0^x \frac{\sin t+1}{3t^2+2} dt$, find $-F(0)$, $-F'(0)$, $-F''(0)$

Q3 Find the limit $\lim_{h \rightarrow 0} \frac{1}{h} \int_x^{x+h} \sec t \, dt$

Math 102 - 21

Quiz # 3 **B**

Sem 052

Q1 Evaluate $\int_e^{e^2} \frac{1}{x \ln x} \, dx$

Q2 Let $F(x) = \int_0^x \frac{\cos t}{3t^2+2} \, dt$, find $-F(0)$, $-F'(0)$, $-F''(0)$

Q3 Find the limit $\lim_{h \rightarrow 0} \frac{1}{h} \int_x^{x+h} t \ln t \, dt$

Math 102 - 17

Quiz # 4 **A**

Sem 052

Q1 Find the length of the curve $y = 2x^{\frac{3}{2}}$ from $x = 0$ to $x = 1$

Q2 Find the area of the surface of revolution if the parametric curve $x = \cos^2 t$, $y = \sin^2 t$, $0 \leq t \leq \frac{\pi}{2}$ is revolving about the y -axis

Q3 $\int (1 + \sinh^2 x) \tanh x \, dx$

Math 102 - 17

Quiz # 4 **B**

Sem 052

Q1 Find the length of the curve $x = 4y^{\frac{3}{2}}$ from $y = 0$ to $y = 4$

Q2 Find the area of the surface of revolution if the parametric curve $x = \cos^2 t$, $y = \sin^2 t$, $0 \leq t \leq \frac{\pi}{2}$ is revolving about the x -axis

Q3 $\int_0^{\ln 2} \sqrt{1 + \sinh^2 x} \tanh x \, dx$

Math 102 - 21

Quiz # 4 **A**

Sem 052

Q1 Find the length of the curve $x = \cos t + t \sin t$, $y = \sin t - t \cos t$, $0 \leq t \leq \frac{\pi}{2}$

Q2 Find the area of the surface of revolution if the parametric curve $y = \sqrt[3]{x}$, $1 \leq x \leq 8$ is revolving about the y -axis

Q3 $\int (1 + \sinh^2 x) \tanh x \, dx$

Math 102 - 21

Quiz # 4 **B**

Sem 052

Q1 Find the length of the curve $x = \cos t + t \sin t$, $y = \sin t - t \cos t$, $0 \leq t \leq \pi$

Q2 Find the area of the surface of revolution if the parametric curve $x = \sqrt[3]{y}$, $1 \leq y \leq 8$ is revolving about the x -axis

Q3 $\int_0^{\ln 2} \sqrt{1 + \sinh^2 x} \tanh x \, dx$

Math 102 - 17

Quiz # 5 **A**

Sem 052

Q1 $\int \sin^3 x \cos^2 x \, dx =$

Q2 $\int \tan^5 x \, dx =$

$$\underline{\text{Q3}} \int e^x \sin 2x \, dx =$$

Math 102 - 17

Quiz # 5 **B**

Sem 052

$$\underline{\text{Q1}} \int \sin^4 x \cos^3 x \, dx =$$

$$\underline{\text{Q2}} \int \sec^4 x \, dx =$$

$$\underline{\text{Q3}} \int e^{3x} \cos x \, dx =$$

Math 102 - 21

Quiz # 5 **C**

Sem 052

$$\underline{\text{Q1}} \int \sin^3 x \cos^3 x \, dx =$$

$$\underline{\text{Q2}} \int \sec^4 x \tan^4 x \, dx =$$

$$\underline{\text{Q3}} \int x^2 \sin x \, dx =$$

Math 102 - 21

Quiz # 5 **B**

Sem 052

$$\underline{\text{Q1}} \int \sin^2 x \cos^2 x \, dx =$$

$$\underline{\text{Q2}} \int \sec^4 x \tan^3 x \, dx =$$

$$\underline{\text{Q3}} \int x^2 e^{3x} \, dx =$$

Math 102 - 17

Quiz # 6 **A**

Sem 052

$$\underline{\text{Q1}} \int \frac{x^3}{\sqrt{x^2 - 16}} \, dx =$$

$$\underline{\text{Q2}} \int \frac{e^x}{e^{2x} + 2e^x + 2} \, dx =$$

$$\underline{\text{Q3}} \int \frac{-2x + 9}{x^2 + x - 6} \, dx =$$

Math 102 - 17

Quiz # 6 **B**

Sem 052

$$\underline{\text{Q1}} \int \frac{x^2}{\sqrt{16 - x^2}} \, dx =$$

$$\underline{\text{Q2}} \int \frac{e^x}{e^{2x} + 4e^x + 5} \, dx =$$

$$\underline{\text{Q3}} \int \frac{x - 4}{x^2 + x - 2} \, dx =$$

Math 102 - 21

Quiz # 6 **B**

Sem 052

$$\underline{\text{Q1}} \int \frac{x^3}{\sqrt{x^2 - 25}} \, dx =$$

$$\underline{\text{Q2}} \int \frac{\sin \theta}{\cos^2 \theta + 2 \cos \theta + 5} \, dx =$$

$$\underline{\text{Q3}} \int \frac{x - 12}{x^2 + x - 6} \, dx =$$

$$\underline{\text{Q1}} \int \frac{x^2}{\sqrt{16-x^2}} dx =$$

$$\underline{\text{Q2}} \int \frac{\cos \theta}{\sin^2 \theta + 2 \sin \theta + 2} dx =$$

$$\underline{\text{Q3}} \int \frac{x-4}{x^2+x-2} dx =$$