

BC Calculus
Test # 6 (1–104) Review Answers

91A. 0

B. $-\infty$

92. $\frac{1}{f(2)} = \frac{1}{10}$

93A. $\frac{9}{4}$

B. 2.236067977

C. -3.183063012

94. $4\pi^2$

95. 1.7039

96A. $\frac{dy}{dx} = \begin{cases} 2e^{2x}, & x > 0 \\ -2e^{-2x}, & x < 0 \\ \text{d.n.e.}, & x = 0 \end{cases}$

B. 5

C. 12

D. 12

E. 0

F. nothing

97. $1 - \frac{\pi}{4}$

98A. $\cos^{\frac{2}{3}} x$

B. $\ln 7$

99A. 12.48

B. $3 + \frac{1}{16\ln 2}$

100A. $-\ln|\cos x| + C$ or $\ln|\sec x| + C$

B. $\tan x - x + C$

C. $\frac{1}{2}\tan^2 x + \ln|\cos x| + C$ or

$\frac{1}{2}\tan^2 x - \ln|\sec x| + C$ or

$\frac{1}{2}\sec^2 x + \ln|\cos x| + C$ or

$\frac{1}{2}\sec^2 x - \ln|\sec x| + C$

D. $\frac{1}{3}\tan^3 x - \tan x + x + C$

