

The deadline for all homework assignments is the one specified in Archie before 11:59 pm. Show all your work and justifications.

In Exercises 99–116, find the indefinite integral.

99. $\int e^{5x}(5) dx$

100. $\int e^{-x^4}(-4x^3) dx$

101. $\int e^{2x-1} dx$

102. $\int e^{1-3x} dx$

103. $\int x^2 e^{x^3} dx$

104. $\int e^x(e^x + 1)^2 dx$

105. $\int \frac{e^{\sqrt{x}}}{\sqrt{x}} dx$

106. $\int \frac{e^{1/x^2}}{x^3} dx$

107. $\int \frac{e^{-x}}{1 + e^{-x}} dx$

108. $\int \frac{e^{2x}}{1 + e^{2x}} dx$

109. $\int e^x \sqrt{1 - e^x} dx$

110. $\int \frac{e^x - e^{-x}}{e^x + e^{-x}} dx$

111. $\int \frac{e^x + e^{-x}}{e^x - e^{-x}} dx$

112. $\int \frac{2e^x - 2e^{-x}}{(e^x + e^{-x})^2} dx$

113. $\int \frac{5 - e^x}{e^{2x}} dx$

114. $\int \frac{e^{2x} + 2e^x + 1}{e^x} dx$

115. $\int e^{-x} \tan(e^{-x}) dx$

116. $\int \ln(e^{2x-1}) dx$