

Week-In-Review #9 (5.3, 5.4, 5.5)

1. Integrate the following:

$$(a) \int \left(2x^3 + 3 - e^x + \frac{1}{x^2} - e^2 \right) dx$$

$$(b) \int \left(\frac{1}{\sqrt{t}} - \sqrt[3]{t^4} \right) dt$$

$$(c) \int \left(y^{1.4} - 5y^{3/2} + 10^y \right) dy$$

$$(d) \int \left(\csc^2 x - ex + \sqrt[5]{x^7} \right) dx$$

$$(e) \int [6t(t+2)] dt$$

$$(f) \int \left(\frac{5z^4 + 6z - 2}{z^3} \right) dz$$

$$(g) \int (3x^2 \sqrt{x^3 + 6}) dx$$

$$(h) \int (8ye^{-2y^2+3}) dy$$

$$(i) \int \left(\frac{x-2}{2x^2-8x+6} \right) dx$$

$$(j) \int \left(\frac{1}{x \ln x} \right) dx$$

$$(k) \int [t(t-8)^{100}] dt$$