

Ch. 5&6 Differential Equations and Integrals Unit – Test Topics (February 2021)

1) Solve differential equation and find particular solution

a) also find equation of tangent line

b) linear approximation using tangent line

2) Differential equation word problem

(exponential growth/decay in the form of $y = Ce^{kt}$)

3) Fill in Slope fields for 6-10 points given differential equation

4) Match Slope field with appropriate differential equation

5) Find Definite/Indefinite Integrals involving: (5.2-5.5 Quiz topics)

a) Natural Logs and Long/synthetic division, U-substitution - ch. 5.2

b) Trig Integrals, u-substitution ch. 5.2

c) Exponentials(in the forms of e^u & a^u), u-substitution - Ch. 5.4 & 5.5

d) Inverse Trig Integrals, completing the square, u-substitution – Ch .5.7