3 July 2018 individual task in calculus:

Edited at 1pm 3 July 2018.

s is your student number. k = s mod 10000. T = s mod 100. m = s mod 35. a = s mod 25.

L = s mod 10. $d\_{2}=\frac{T-L}{10}$. e = s mod 8. m7 = s mod 7. m6 = s mod 6. m5 = s mod 5. m4 = s mod 4.

m3 = s mod 3. m2 = s mod 2. u = s + 10000.

Solve the linear and non-linear real projectile problems for A = T degrees, V = T, R = 1/T.

Linear:

x'' + Rx' = 0

y'' + Ry' = -g

Non-linear:

x'' + R(x')2 = 0

y'' + R(y')2 = -g

g = 10

x(t)

y(t)

t = time

x(0) = 0

x'(0) = Vcos(A)

y(0) = 0

y'(0) = Vsin(A)

http://www.wolframalpha.com/widgets/view.jsp?id=e602dcdecb1843943960b5197efd3f2a