

## 5.4 Handout

1. Solve the following diffy-Q's.

(a)  $\frac{db}{dt} = 0.001b, \quad b(0) = 1000.$

(b)  $\frac{dy}{dt} = t^2y, \quad y(0) = 1.$

(c)  $\frac{df}{dt} = \cos(t)y^2, \quad y(0) = 4.$