[1]. Given the following Intertemporal Budget Constraint:

$$C_1 + \frac{C_2}{1+r} = Y_1 + \frac{Y_2}{1+r}$$

and the following values:
Y_1 = \$5000
Y_2 = \$50,000
$(1+r) = 1.6$

[a] Find the maximum first period income end point $(1+r)Y_1 + Y_2$?
58,000

[b] Find the maximum second period income end point $Y_1 + Y_2/(1+r)$?
36,250

[c] Assume (as in **Figure C** above) that Indifference Curve I at Point A is the Optimal point where no Saving or Borrowing is occurring and where the Utility associated with I = 50 util units, find C_1 and C_2 ?

[d] Now assume (as in **Figure C** above) that the Optimal point is on a lower Indifference Curve where I = 45 util units and where some Borrowing would need to occur, find M_1 and M_2 ?

[2]. Given the following Intertemporal Budget Constraint:

$$C_1 + \frac{C_2}{1+r} = Y_1 + \frac{Y_2}{1+r}$$

and the following values:
Y_1 = \$8000
Y_2 = \$40,000
$(1+r) = 1.8$

[a] Find the maximum first period income end point $(1+r)Y_1 + Y_2$?

[b] Find the maximum second period income end point $Y_1 + Y_2/(1+r)$?

[c] Assume (as in **Figure C** above) that Indifference Curve I at Point A is the Optimal point where no Saving or Borrowing is occurring and where the Utility associated with I = 58 util units, find C_1 and C_2 ?

[d] Now assume (as in **Figure C** above) that the Optimal point is on a lower Indifference Curve where I = 48 util units and where some Borrowing would need to occur, find M_1 and M_2 ?