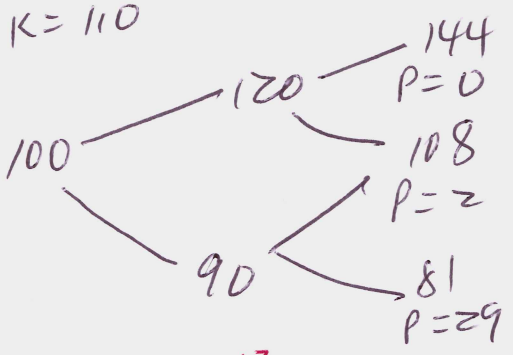
Fall 2012: Final B for 4:00

P5 $100-120$: $+12$ $r^* = 1 - \frac{(1-.8(.35))(1-.25)}{1-.45}$ ($+10$, $+4$) $= +0.01818$

$120-150$: $+12$ $r^* = 1 - \frac{(1-.3(.35))(1-.25)}{1-.45}$ ($+10$, $+4$) $= -0.222$

$\Rightarrow$ optimal interest = 120 million $+15$

P6 $K = 110$



$S=120$: $+1$ $\Delta = \frac{0-2}{144-108}$ ($+2$, $+2$, $+2$) $= -0.0555$

$+1$ $B = \frac{+2 - (-0.0555)(108)}{1.02}$ ($+2$, $+2$) $= +7.843$

$+1$ $P = 120(-0.0555) + 7.843$ ($+2$, $+2$) $= 1.183$

$S=90$: $+1$ $\Delta = \frac{2-29}{108-81}$ ($+2$, $+2$) $= -1$

$+1$ $B = \frac{29 - (-1)(81)}{1.02}$ ($+2$, $+2$) $= +107.8432$

$+1$ $P = 90(-1) + 107.84$ ($+2$, $+2$) $= 17.8432$

$t=0$: $+1$ $\Delta = \frac{1.183 - 17.843}{120-90}$ ($+2$, $+2$) $= -0.5553$

$+1$ $B = \frac{17.8432 - (-0.5553)(90)}{1.02}$ ($+2$, $+2$)

$+1$ $P = 100(-.5553) + 66.4904$ ($+2$, $+2$)