

# Problem 1

~~Problem 1~~

①  $MARR = 12\%$

$$NPW_A = -5017 + 1000 \left( \frac{P}{F}, 12, 6 \right)$$

$$= -5017 + 1000(0.5066311) = -4510.37 = \$ -4510$$

$$NPW_B = -1400 - 1400 \left( \frac{P}{A}, 12, 5 \right)$$

$$= -1400 - 1400(3.6047760) = -6446.7 = \$ -6450$$

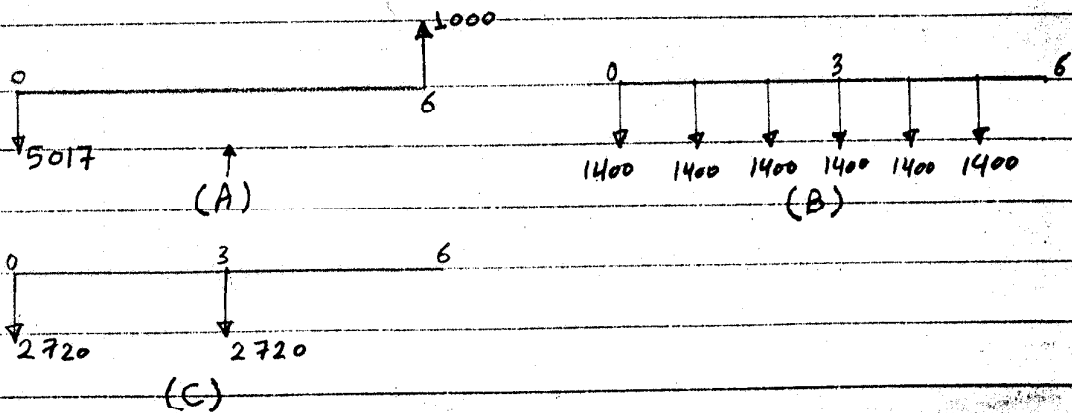
$$NPW_C = -2720 - 2720 \left( \frac{P}{F}, 12, 3 \right) \text{ equal replacement condition}$$

$$= -2720 - 2720(0.7117802) = -4656.04 = \$ -4656.04$$

CHOOSE A

②  $NPW_{A-B} = -5017 + 1000/(i+1)^6 + 1400 + 1400 \left( \frac{P}{A}, i, 5 \right) = 0$

By trial and error  $i = 30\%$



Prob. 2

$$D_m = (62,455 - 6,000) / 7$$

$$= \underline{\$8,065}$$

Problem 3

$$SOY = (7)(8) / 2 = 28$$

$$R_m = (7 - m + 1) / 28 = (8 - m) / 28$$

$$D_m = R_m (62,455 - 6,000) = (8 - m) (56,455) / 28$$

<u>Year</u>	<u><math>D_m</math></u>	<u><math>BV_m</math></u>
0	0	62,455.00
1	14,113.75	48,341.25
2	12,097.50	36,243.75
3	10,081.25	26,162.50
4	8,065.00	18,097.50
5	6,048.75	12,048.75
6	4,032.50	8,016.25
7	2,016.25	6,000.00