

**ECO B9502
Urban Economics**

Homework 5 Solution

1. If $i = 0.06$:

$$NPV = -100000 + \frac{30000}{1.06} + \frac{25000}{1.06^2} + \frac{12000}{1.06^3} + \frac{30000}{1.06^4} + \frac{1000}{1.06^5} + \frac{3000}{1.06^5}$$

$NPV = -12620.94$, Do not invest since $NPV < 0$.

2. If $i = 0.10$

All the same as in (1) except denominator is 1.10.

$NPV = -20076.24$, Do not invest since $NPV < 0$.

3. If salvage value rises to \$10000.

Same as (1) except numerator of last term on right is 10000 instead of 3000.

$NPV = -7390.14$, Do not invest since $NPV < 0$.

Note: Your answer may vary slightly due to differences in rounding.