Example Problem 5-1

Given 2 alternatives:

	A	B
First Cost	4,000	6,000
Annual Cost	1,000	500
Annual Benefit	2,000	2,200
Life	5	10
Salvage	3,000	1,000

If i = 10%, find the better alternative computing NPW of both alternatives Assume alternative A is replaced at the end of its useful life.

Example Problem 5-2

The 16 overhead doors on your loading dock must be replaced now. The deluxe model costs $2,200 each and will last for six years. The standard model costs $1,600 each and will last for four years. The deluxe model is aluminum so it will have a scrap value of $150 at the end of its life. The standard model is plastic and has no scrap value. The use of the deluxe model on the loading dock will also save your company $1,000 per year in heating costs because of its ability to seal better. If you use an i = 12% and present worth analysis, which door will you recommend?

Example Problem 5-3

You have saved $2,500 toward a new car and you believe that you can afford monthly payments of $250.

(a) If your bank offers financing terms of 60 months at a nominal 12 % interest, what is the most you can pay for a car?
(b) The dealer offers 9% financing but the loan is for only 36 months. What is the most you can pay for a car on this basis?

Example Problem 5-4

Below exists data for two mutually exclusive alternatives.

	Alternatives	
	A	B
Initial Cost	$4000	$3000
Annual Benefits (beginning at end of Year 1)	$1000	$600
Annual Costs (beginning at end of Year 1)	$ 300	$100
Salvage Value	$ 500	$ 0
Useful Life (Years)	5	10

Calculate the NPW = PW (Benefits) – PW (Costs) for each alternative and specify the preferred alternative. $i = 7\%$