3.4.1.1 Payback period example

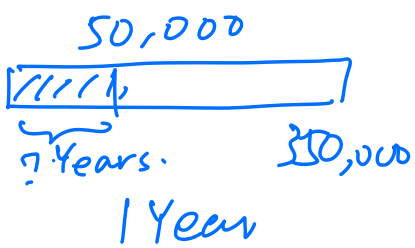
Q: Project A & B compute & choose

	Project A		Project B	
	Revenues	Outlays	Revenues	Outlays
Year 0		$500,000		$500,000
Year 1	$ 50,000		$ 75,000	
Year 2	150,000		100,000	
Year 3	350,000		150,000	
Year 4	600,000		150,000	
Year 5	500,000		900,000	

$$\text{payback period} = \frac{\text{Investment}}{\text{Annual Cash Saving}}$$

Solution ① Project A

Year	Cash Flow	Cum Cash Flow
0	($500,000)	($500,000)
1	50,000	(450,000)
2	150,000	(300,000)
3	350,000	50,000
4	600,000	650,000
5	500,000	1,150,000



$$3 - \frac{50{,}000}{350{,}000} = 2.857$$

② Project B

Year	Cash Flow	Cum Cash Flow
0	($500,000)	($500,000)
1	$75,000	($425,000)
2	$100,000	($325,000)
3	$150,000	($175,000)
4	$150,000	($25,000)
5	$900,000	875,000

$$5 - \frac{\$75{,}000}{900{,}000} = 4.028$$

③ choose Project A

Due to A payback period is smaller than B