

Solution 1.37

(a) At a simple interest rate of 12% per year, determine how long it will take \$5000 to increase to twice as much. (b) Compare the time it will take to double if the rate is 20% per year simple interest.

Solution:

(a) $F = P + Pni$
 $10,000 = 5000 + 5000(n)(0.12)$
 $5000 = 600n$
 $n = 8.33 \text{ years}$

(b) $10,000 = 5000 + 5000(n)(0.20)$
 $n = 5 \text{ years}$