PC40S Compound Interest

1.) Determine the new investment value of:

a.) $2000 at 8% compounded annually over 15 years

b.) $5000 at 12% compounded monthly over 4 years

c.) $15 000 at 6% compounded semi-annually over 7 years

2.) Christina plans to buy a car. She has saved $5000. The car she wants costs $5900. How long will Christina have to invest her money in a term deposit that pays 6.12% per year, compounded quarterly, before she has enough to buy the car?

3.) A $1000 investment earns interest at a rate of 8% per year, compounded quarterly. How long will it take for the investment to double in value?

4.) Determine the interest paid on a $675 investment left for four years compounded annually at a rate of 4.25%.

5.) Glenn and Arlene plan to invest money for their newborn grandson so that he has $20 000 available for his education on his 18^{th} birthday. Assuming a growth rate of 7% per year, compounded, semi-annually, how much will Glenn and Arlene need to invest today?

6.) Suppose you were able to invest $1250 in an account where interest was compounded continuously at a rate of 3%. Determine the amount after 4 years.

Answers

1a) $6344.34
b) $8061.13
c) $22 688.85
2) 2.725 yrs
3) 8.75 yrs
4) $122. 27
5) $5796.65
6) $1409.37