**REVIEWING FUTURE VALUE**

|  |
| --- |
| **FORMULA**(**A = AMOUNT, or FUTURE VALUE**) |
| **R** = Regular \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ amount**n** = Total number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_where **n =** **i** = Interest rate per *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ period*where **i =**  |
|  |

***EXAMPLE 1*** *Amount of an Annuity*

$450 is deposited at the end of each quarter for 1.5 years in an investment account that earns 10% per year, compounded quarterly

* A) What is the amount of the annuity?

|  |
| --- |
| Using formulas |

* B) How much interest does the annuity earn?

***EXAMPLE 2*** *Comparing Retirement Plans*

Tom and Beth are twins. Starting at age 25, Tom deposits $1000 at the end of each year for 40 years into his retirement fund. Starting at age 45, Beth deposits $2000 at the end of each year for 20 years

* A) Suppose each annuity earns 8% per year, compounded annually. Who will have more money at retirement?

|  |
| --- |
| Using formulas **TOM** |
| Using formulas **BETH** |

Therefore,

B) What do we learn about annuities from this example?