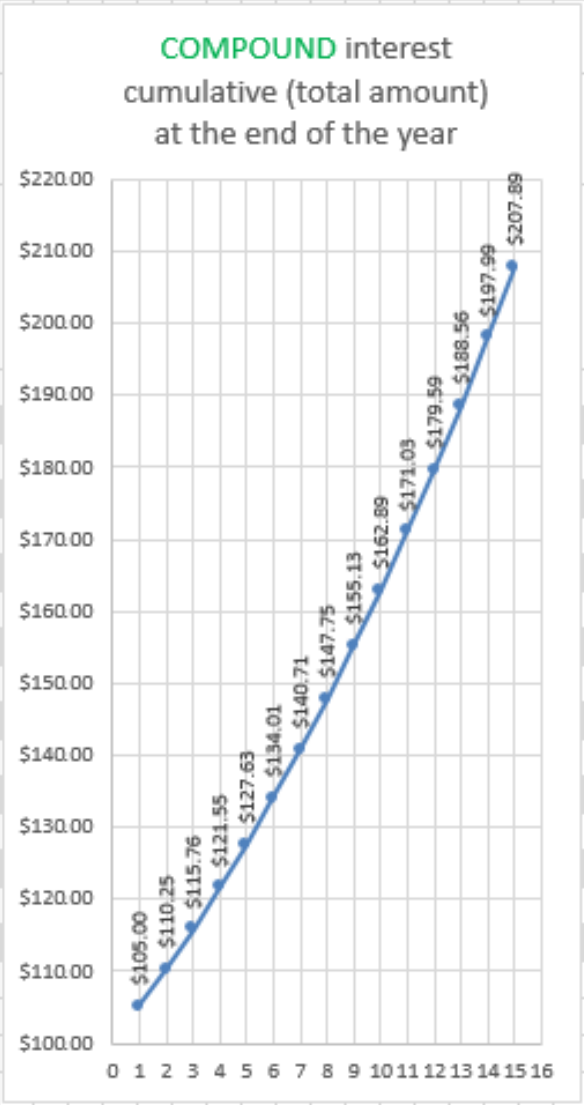
Examples: Interest rates; COMPOUND Interest

For Compound Interest, compounded annually,
the amount at the END of the year "x",
becomes the amount on which the compound interest for the year "x+1" is calculated,
and so on.

Principal amount	$100.00
COMPOUND Interest Rate	5.00%

amount on which the interest is calculated	year #	interest rate for the year	interest earned for the year	cumulative (total amount) at the end of the year
$100.00	1	5.00%	$5.00	$105.00
$105.00	2	5.00%	$5.25	$110.25
$110.25	3	5.00%	$5.51	$115.76
$115.76	4	5.00%	$5.79	$121.55
$121.55	5	5.00%	$6.08	$127.63
$127.63	6	5.00%	$6.38	$134.01
$134.01	7	5.00%	$6.70	$140.71
$140.71	8	5.00%	$7.04	$147.75
$147.75	9	5.00%	$7.39	$155.13
$155.13	10	5.00%	$7.76	$162.89
$162.89	11	5.00%	$8.14	$171.03
$171.03	12	5.00%	$8.55	$179.59
$179.59	13	5.00%	$8.98	$188.56
$188.56	14	5.00%	$9.43	$197.99
$197.99	15	5.00%	$9.90	$207.89



with COMPOUND interest
TOTAL after 15 years
= Prncpl Amt × { [1 + (intrst rate)]^(# of yrs) }
= $100.00 × { [1 + (5%)]^(15) }
= $100.00 × { [1 + (5×(1/100))]^(15) }
= $100.00 × { [1 + (0.05)]^(15) }
= $100.00 × { 1.05 ^ 15 }
= $100.00 × { 2.0789 }
= $207.89