

8.  $P = 2000$   $r = 3.2\%$   $t = 15$

$n = 1$

$A = P(1 + \frac{r}{n})^{nt}$

$A = 2000(1 + \frac{.032}{1})^{1 \times 15}$

$A = 2000(1 + .032)^{15}$

$A = 3207.93$

$n = 2$

$A = P(1 + \frac{r}{n})^{nt}$

$A = 2000(1 + \frac{.032}{2})^{2 \times 15}$

$A = 2000(1 + \frac{.032}{2})^{30}$

$A = 3219.89$

$n = 4$

$A = P(1 + \frac{r}{n})^{nt}$

$A = 2000(1 + \frac{.032}{4})^{4 \times 15}$

$A = 2000(1 + \frac{.032}{4})^{60}$

$A = 3225.98$

$n = 12$

$A = P(1 + \frac{r}{n})^{nt}$

$A = 2000(1 + \frac{.032}{12})^{(12 \times 15)}$

$A = 3230.08$

$n = 365$

$A = P(1 + \frac{r}{n})^{nt}$

$A = 2000(1 + \frac{.032}{365})^{(365 \times 15)}$

$A = 3232.08$

CONTINUOUS

$A = Pe^{rt}$

$A = 2000e^{.032 \times 15}$

$A = 3232.15$

9.  $A = Pe^{rt}$

$\frac{A}{e^{rt}} = \frac{Pe^{rt}}{e^{rt}}$

$\frac{A}{e^{rt}} = P$

$A = 200000$

$r = 4.1\% = .041$

$t = 1$

$P = \frac{A}{e^{rt}}$

$P = \frac{200000}{e^{.041 \times 1}}$

$P = 191965.83$

$t = 10$

$P = \frac{A}{e^{rt}}$

$P = \frac{200000}{e^{.041 \times 10}}$

$P = 132730.05$

$t = 20$

$P = 86086.33$

$t = 30$

$P = 58458.52$

$t = 40$

$P = 38796.01$

$t = 50$

$P = 25746.98$