

1	<p>Jeff's bank also offers a 36-month Certificate of Deposit (CD) with an APR of 2.25%.</p> <p>(a) If <math>P = 2000</math> what is <math>A(8)</math>?</p> <p>(b) Solve the equation <math>A(t) = 4000</math> for <math>t</math>.</p> <p>(c) What principal <math>P</math> should be invested so that the account balance is \$2000 in three years?</p>
2	<p>A finance company offers a promotion on \$5000 loans. The borrower does not have to make any payments for the first three years, however interest will continue to be charged to the loan at 29.9% compounded continuously. What amount will be due at the end of the three year period, assuming no payments are made? If the promotion is extended an additional three years, and no payments are made, what amount would be due?</p>
3	<p>The diameter <math>D</math> of a tumor, in millimeters, <math>t</math> days after it is detected is given by:</p> $D(t) = 15e^{0.0277t}$ <p>(a) What was the diameter of the tumor when it was originally detected?</p> <p>(b) How long until the diameter of the tumor doubles?</p>
4	<p>The population of Sasquatch in Bigfoot county is modeled by</p> $P(t) = \frac{120}{1 + 3.167e^{-0.05t}}$ <p>where <math>P(t)</math> is the population of Sasquatch <math>t</math> years after 2010.</p> <p>(a) Find and interpret <math>P(0)</math>.</p> <p>(b) Find the population of Sasquatch in Bigfoot county in 2013. Round your answer to the nearest Sasquatch.</p> <p>(c) When will the population of Sasquatch in Bigfoot county reach 60? Round your answer to the nearest year.</p>
5	<p>Find the present value of four \$100 payments made at the end of each of the next four years earning a return of 10% per year.</p>
6	<p>Find the future value accumulated in an annuity after investing periodic payments of \$132 for 7 years at an annual interest rate of 7.25%, with payments made and credited 4 times per year.</p>
7	<p>Find the present value of a loan with an annual interest rate of 6% and periodic payments of \$710.17 for a term of 9 years, with payments made and interest charged 12 times per year.</p>
8	<p>Find the periodic payment of a loan with present value \$16,000 and an annual interest rate 6% for a term of 5 years, with payments made and interest charged 12 times per year.</p>