MATH 373
Quiz 2
Spring 2018
February 8, 1028

1. Caroline has the option of the following two continuous annuities:
    a. An annuity that pays continuously at an annual rate of 1000 for 20 years.
    b. An annuity that pays continuously at a rate of Xt at time t for 20 years.

    Both annuities have the same present value at a force of interest of 8%.

    Determine X .

2. Kevin is receiving an annuity due with quarterly payments for the next 30 years. Each payment in the first year is P. Each payment in the second year is $2P$. Each payment in the third year is $3P$. The payments continue to increase by P each year until each payment in the 30th year is $30P$.

   The present value of this annuity at an interest rate of 8% compounded quarterly is 200,000.

   Determine P.

3. I would like to receive 10 points for having written my name on the front cover. Circle the correct answer.

True or **False**