

**MATH 3631 - Actuarial Mathematics II**  
**Spring 2020 - Valdez**  
**Quiz No. 7**  
**Monday, 27 April 2020**

Name: \_\_\_\_\_ Student ID: \_\_\_\_\_

You are given the following information for Bill, now age 45, who just joined a DB pension plan:

- The plan provides a retirement pension of 2.5% of final average salary for each year of service. The final average salary is defined as the average salary in the two years before retirement.
- Retirement is at exact age 65.
- Bill's projected salaries in the two years preceding retirement are:

$$S_{63} = 148,000 \quad S_{64} = 150,250$$

Calculate Bill's replacement ratio provided by his pension.

NOTE: Please submit your answers with a PDF file starting with your last name followed by an underscore and whatever else you wanna name it. For example, **Valdez\_Quiz7.pdf**. Thank you and stay safe.