**Name:** _____     **Student ID:** _____

A whole life annuity-due with annual payments of \$1 is issued to a person age 97. You are given:

- $i = 3\%$, and

- the following extract from a mortality table:

| age $x$ | 97 | 98 | 99 | 100 |
|---------|-----|-----|-----|-----|
| $\ell_x$ | 100 | 80 | 50 | 0 |

Let $Y$ be the present value random variable for this whole life annuity-due.

Calculate Var$[Y]$.