

**209.** In 2005 a risk has a two-parameter Pareto distribution with  $\alpha = 2$  and  $\theta = 3000$ . In 2006 losses inflate by 20%.

An insurance on the risk has a deductible of 600 in each year.  $P_i$ , the premium in year  $i$ , equals 1.2 times the expected claims.

The risk is reinsured with a deductible that stays the same in each year.  $R_i$ , the reinsurance premium in year  $i$ , equals 1.1 times the expected reinsured claims.

$$R_{2005}/P_{2005} = 0.55$$

Calculate  $R_{2006}/P_{2006}$ .

- (A) 0.46
- (B) 0.52
- (C) 0.55
- (D) 0.58
- (E) 0.66