**Solution 1.59**

The simple interest rate per year that will accu­mulate the same amount of money in 2 years as a compound interest rate of 20% per year is closest to:

(*a*) 20.5%

(*b*) 21%

(*c*) 22%

(*d* ) 23%

*Solution:*

F in year 2 at 20% compound interest = P(1.20)(1.20) = 1.44P

For simple interest, F = P + Pni = P(1 + ni)

P(1 + 2i) = 1.44P

(1 + 2i) = 1.44P

i = 22%

Answer is (c)