

2004 Four-by-Four Competition
Thursday, February 5th, 2004

1. What value(s) of x satisfy $2(x+7) - 5(4+2x) = 3(3x-4) + 2(5-3x)$?

2. Bag A contains four yellow marbles and one green marble. Bag B contains two yellow marbles and five green marbles. If a marble is randomly selected from Bag A and placed in Bag B, and a marble is then randomly selected from Bag B, what is the probability that the marble selected from Bag B will be yellow?

3. What is the volume, in cubic centimeters, of a regular tetrahedron with edge length 6 cm?

4. Evaluate: $\sum_{f=1}^{10} \ln\left(\frac{f+2}{f}\right)$
