ENGG2760A Quiz 1 1155144002

A: Charlie's face value is strictly larger than both Alice and Bob's when his value is not 1.

∴ The no. of possibilities in which Charlie's value is larger than both Alice's and Bob's are:

When Charlie's face value is 2, $1^2 = 1$

When it is 3, $2^2 = 4$

When it is 4, $3^2 = 9$

When it is 5, $4^2 = 16$

When it is 6, $5^2 = 25$

∴ The event in which Charlie's value is strictly larger than Alice and Bob is

$|A| = 1+4+9+16+25 = 55$

∴ The required probability is,

$$\frac{|A|}{|\Omega|} = \frac{55}{6^3} = 0.2546296296\ldots$$