

I U P U I
MATH CLUB TEASER #51

October 29, 2010
(due November 5, 2010)

SOLUTION

The possible final outcomes are 14, 15, 16, 17, and 18. Take any number between 14 and 18, say 17. It can be reached in one throw of the die from 11 and from 12 (throwing 5 or 6). The previous number, 16, can also be reached from 11 and 12 (throwing 4 or 5), but it ALSO can be reached from 10 (with a 6). This means that there are more chances of hitting 16 than 17.

The same logic applies to all other numbers, so 17 is likelier than 18, 16 likelier than 17, and so on. This makes 13 the most likely result. In fact, 13 will be the final outcome in about 28% of the trials.

SOLVED BY:

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