

Invisible Dice

Question: There is a regular die and a special invisible die. You know that regular die has integers 1 to 6, but don't know what's on the invisible dice. After tossing, I speak the sum of outcome of both die. It so happens that the outcome is an integer between 1 to 12, with equal probability ($1/12$ each). Can you guess what are the numbers printed on special invisible dice?

Solution:

- Regular: 1, 2, 3, 4, 5, 6, each with $1/6$
- Invisible: 0, 6, each with $1/2$