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Exercise: PMF calculation

(2/2 points)

As in the previous lecture clip, consider the same example of two rolls of a 4-sided die, with all 16 outcomes equally likely. As before, let X be the result of the first roll and Y be the result of the second roll. Define $W = XY$. Find the numerical values of $p_W(4)$ and $p_W(5)$.

a) $p_W(4) =$ 3/16 ✔ **Answer:** 0.1875

b) $p_W(5) =$ 0 ✔ **Answer:** 0

Answer:
a) The event $W = 4$ may occur in three different ways: $(1,4),\ (2,2),\ (4,1)$. Since all 16 outcomes of the two rolls are equally likely, $p_W(4) = \mathbf{P}(W = 4) = 3/16$.

b) The event $W = 5$ cannot happen, and so $p_W(5) = \mathbf{P}(W = 5) = 0$.

You have used 1 of 2 submissions

Exercises 7 due Mar 02, 2016 at 23:59 UTC

Solved problems

Additional theoretical material

Problem Set 4
Problem Set 4 due Mar 02, 2016 at 23:59 UTC

Unit summary