

Ramesh throws an ordinary fair 6-sided die.

- (a) Find the probability that he obtains a 4 for the first time on his 8th throw. [1]

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- (b) Find the probability that it takes no more than 5 throws for Ramesh to obtain a 4. [2]

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Ramesh now repeatedly throws two ordinary fair 6-sided dice at the same time. Each time he adds the two numbers that he obtains.

- (c) For 10 randomly chosen throws of the two dice, find the probability that Ramesh obtains a total of less than 4 on at least three throws. [4]

[illegible]