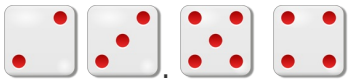
Four dice game I

This task is about predicting, then recording, the outcome of a game of chance.

Practical task
In a game four dice are thrown and the numbers facing up are added together.

Example:



Sum = 14 = 2 + 3 + 5 + 4

- Player 1 wins if the sum is 11 to 17.
- Player 2 wins if the sum is 4 to 10 or 18 to 24.

a) i) Which player do you think is the most likely to win?

Player 1 **Player 2** **They are equally likely** (*circle one*)

ii) Explain your answer to a) i)

_____

_____

b) You are to carry out this experiment in pairs. Throw four dice and sum the numbers that are facing up. Record which player wins in the table below. Do this 100 times.

	Tally	Frequency
Player 1 wins		
Player 2 wins		

c) i) What is the probability of Player 1 winning based on your results for b) above? _____
ii) How could you get a more accurate estimate of the probability that Player 1 wins?

_____

_____

d) i) Do the results of your experiment indicate the game is fair?

Yes / **No** (*Circle one*)

ii) Explain your answer to d) i).

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