## Probability – 2023 June AS Math 9709

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I. JU	He/ZUZS	/Paper	9/09/	<b>32/INU</b>	. Z

A sports event is taking place for 4 days, beginning on Sunday. The probability that it will rain on Sunday is 0.4. On any subsequent day, the probability that it will rain is 0.7 if it rained on the previous day and 0.2 if it did not rain on the previous day.

(a)	Find the probability that it does <b>not</b> rain on any of the 4 days of the event.		
	.89		
<b>(b</b> )	Find the probability that the first day on which it rains during the event is Tuesday.	2]	


2.	Jasn	une/2023/Paper_9709/53/No.5  Jasmine throws two ordinary fair 6-sided dice at the same time and notes the numbers on the uppermost		
	face	es. The ever $A$ :	Ints $A$ and $B$ are defined as follows.  The sum of the two numbers is less than 6.	
		<i>B</i> :	The difference between the two numbers is at most 2.	
	(a)	Determine	whether or not the events $A$ and $B$ are independent. [4]	
			10	
			200	
			100	
			•	
	(b)	F: 4 D/D	[2]	
	(D)	Find P(B	[3]	