5 On Mondays, Rani cooks her evening meal. She has a pizza, a burger or a curry with probabilities 0.35, 0.44, 0.21 respectively. When she cooks a pizza, Rani has some fruit with probability 0.3. When she cooks a burger, she has some fruit with probability 0.8. When she cooks a curry, she never has any fruit.

    (a) Draw a fully labelled tree diagram to represent this information. [2]

(b) Find the probability that Rani has some fruit. [2]

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(c) Find the probability that Rani does not have a burger given that she does not have any fruit. [4]

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