

Exercise 1

Calc. : ✓

The owner of a house has a red key ring and a green one.
There are three keys on the red one and five keys on the green one.
There is only one key on each key ring that will open the door of the house.
The owner of the house randomly picks one of the key rings and then randomly chooses one of the keys.

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| 1. Draw a tree diagram illustrating the experiment. (do not forget to write the probability for each branch) | 3 marks |
| 2. Calculate the probability that the chosen key will open the door of the house. | 2 marks |
| 3. Given that the key is not opening the door, find the probability that the owner chose the red key ring. | 3 marks |