

- ✓ Consider a standard 52-card deck of cards with 13 card values (Ace, King, Queen, Jack, and 2-10) in each of the four suits (clubs, diamonds, hearts, spades). If a card is drawn at random, what is the probability that it is a spade or a two? *

1/1

Note that "or" in this question refers to inclusive, not exclusive, or.

- ☐ About 0.019
- ☐ About 0.077
- ☐ About 0.17
- ☐ About 0.25
- ☒ About 0.308
- ☐ About 0.327
- ☐ About 0.5
- ☐ None of the above



✓ Imagine flipping two fair coins, where each coin has a Heads side and a Tails side, with Heads coming up 50% of the time and Tails coming up 50% of the time. What is probability that after flipping those two coins, one of them lands heads and the other lands tails? *

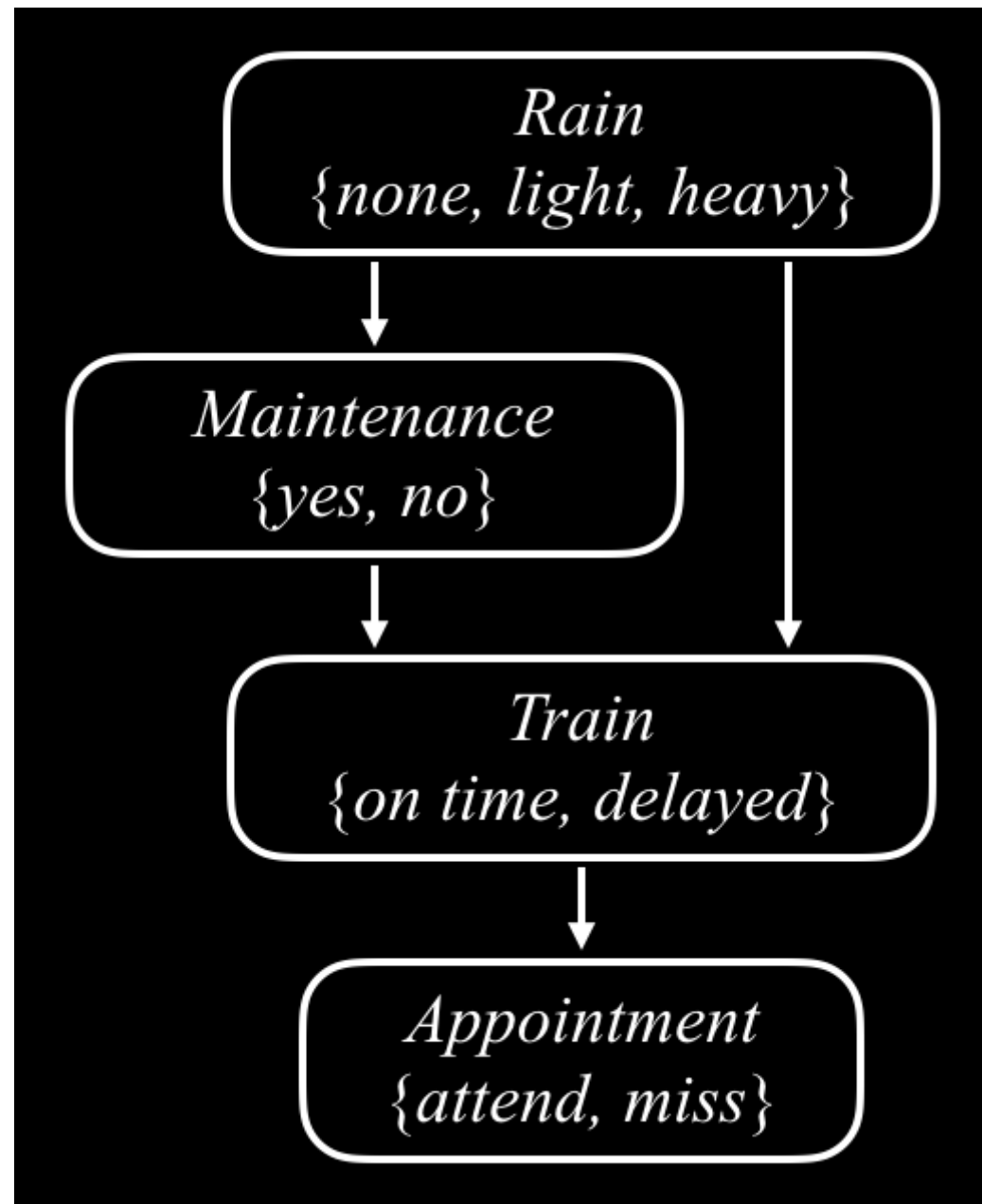
1/1

- ☐ 0
- ☐ 0.125
- ☐ 0.25
- ☐ 0.375
- ☒ 0.5
- ☐ 0.625
- ☐ 0.75
- ☐ 0.875
- ☐ 1



The following question will ask you about the Bayesian Network shown in lecture, reproduced below.





✗ Which of the following sentences is true? *

0/1

- ☒ Assuming we know there is rain, whether or not there is track maintenance does not affect the probability that the train is on time. ✗
- ☐ Assuming we know there is track maintenance, whether or not there is rain does not affect the probability that the appointment is attended.
- ☐ Assuming we know there is track maintenance, whether or not there is rain does not affect the probability that the train is on time.
- ☐ Assuming we know the train is on time, whether or not there is track maintenance does not affect the probability that the appointment is attended.
- ☐ Assuming we know the train is on time, whether or not there is rain affects the probability that the appointment is attended.



✓ Two factories — Factory A and Factory B — design batteries to be used in 1/1 mobile phones. Factory A produces 60% of all batteries, and Factory B produces the other 40%. 2% of Factory A's batteries have defects, and 4% of Factory B's batteries have defects. What is the probability that a battery is both made by Factory A and defective? *

☐ 0.008

☒ 0.012



☐ 0.024

☐ 0.028

☐ 0.02

☐ 0.06

☐ 0.12

☐ 0.2

☐ 0.429

☐ 0.6

☐ None of the above



Comments, if any

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