

Practice quiz on Probability Concepts

NÚMERO TOTAL DE PONTOS 9

1. If $x = \text{"It is raining,"}$ what is $\sim (\sim x)$?

1 ponto

- ☐ "It is never raining"
- ☐ "It is not raining"
- ☒ "It is raining"
- ☐ "It is always raining"

2. If the statement "I am 25 years old" is assigned probability 0, what probability is assigned to the statement "I am not 25 years old"?

1 ponto

- ☒ 1
- ☐ Unknown
- ☐ 0
- ☐ -1

3. If I assign to the statement $x = \text{"it will rain today"}$ a probability of $p(x) = 0.35$, what probability must I assign to the statement "it will not rain today"?

1 ponto

- ☒ .65
- ☐ .5
- ☐ .35
- ☐ 0

4.

1 ponto

Is the following collection of statements a probability distribution?

1. I own a Toyota pickup truck
2. I do not own a Toyota pickup truck
3. I own a non-Toyota pickup truck
4. I do not own a non-Toyota pickup truck

☒ No

☐ Yes

5. I don't know what it means to be "ingenuous." What probability would I assign to the statement, "I am ingenuous OR I am not ingenuous"?

1 ponto

☐ 0

☐ -1

☐ .5

☒ 1

6. A friend of mine circumscribes a circle inside a square, so that the diameter of the circle and the edge of the square are the same length. He asks me to close my eyes and pick a point at random inside the square. He says the probability that my point will also be inside the circle is $\frac{\pi}{4}$

1 ponto

Is this correct?

☒ Yes

☐ No

7. The probability of drawing a straight flush (including a Royal Flush) in a five-card poker hand is 0.0000153908

1 ponto

What is the probability of **not** drawing a straight flush?

- ☒ .9999846092
- ☐ .9999745688
- ☐ .9996582672
- ☐ .9967253809

8. What is the probability that a fair, six-sided die will come up with a prime number? (Recall that prime numbers are positive integers other than 1 that are divisible only by themselves and 1)

1 ponto

- ☐ $\frac{1}{3}$
- ☒ $\frac{1}{2}$
- ☐ $\frac{2}{3}$
- ☐ $\frac{1}{6}$

9. The joint probability p (the die will come up 5, the next card will be a heart) is equal to the joint probability:

1 ponto

- ☐ p (the die will **not** come up 5, the next card will **not** be a heart)
- ☒ p (the next card will be a heart, the die will come up 5)
- ☐ p (the next card will **not** come up 5, the next card will be a heart)
- ☐ p (the next card will be a heart, the die will **not** come up 5)

☐ Eu compreendo que enviar um trabalho que não seja meu pode resultar em fracasso permanente deste curso ou desativação de minha conta do Coursera.

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