

MULTIPLE CHOICE

A fair coin is flipped twice. What is the probability of getting two tails?

$(1/4)$

$(1/2)$

$(3/4)$

1

MULTIPLE CHOICE

Two dice are rolled. What is the probability both show a 6?

$$(1/36)$$

$$(1/6)$$

$$(1/12)$$

$$(1/3)$$

MULTIPLE CHOICE

A bag has 3 red and 2 blue marbles. Two marbles are drawn with replacement.
What is $P(\text{both red})$?

$$(9/25)$$

$$(1/5)$$

$$(3/10)$$

$$(6/25)$$

MULTIPLE CHOICE

The probability of rain on Saturday is 0.3 and on Sunday is 0.4. What is $P(\text{no rain both days})$?

0.42

0.12

0.70

0.88

MULTIPLE CHOICE

A light bulb has 10% chance of failing in the first year. Two bulbs are installed.
What is $P(\text{both fail})$?

0.01

0.10

0.19

0.20

MULTIPLE CHOICE

A spinner has $\frac{1}{3}$ chance of landing on red. If spun twice, what is $P(\text{not red both times})$?

$$\left(\frac{4}{9}\right)$$

$$\left(\frac{1}{9}\right)$$

$$\left(\frac{2}{3}\right)$$

$$\left(\frac{5}{9}\right)$$

MULTIPLE CHOICE

Two cards are drawn with replacement from a deck. What is $P(\text{both aces})$?

$$(1/169)$$

$$(1/13)$$

$$(1/26)$$

$$(1/52)$$

MULTIPLE CHOICE

A fair coin is flipped 3 times. What is $P(\text{all heads})$?

$$(1/8)$$

$$(1/2)$$

$$(1/4)$$

$$(3/8)$$

MULTIPLE CHOICE

Machine A has 5% defect rate, Machine B has 3%. One item from each machine.
What is $P(\text{both defective})$?

0.0015

0.08

0.15

0.02

MULTIPLE CHOICE

A die is rolled twice. What is $P(\text{first roll} > 4 \text{ and second roll} < 3)$?

$$(1/9)$$

$$(1/6)$$

$$(1/12)$$

$$(1/18)$$

MULTIPLE CHOICE

A bag has 4 green and 6 yellow balls. Two drawn with replacement. What is $P(\text{first green, second yellow})$?

$$(6/25)$$

$$(2/15)$$

$$(12/45)$$

$$(3/10)$$

MULTIPLE CHOICE

Probability John is late is 0.2, Sarah is 0.1. What is $P(\text{neither late})$?

0.72

0.02

0.30

0.80

MULTIPLE CHOICE

A coin is flipped and a die is rolled. What is $P(\text{heads and even number})$?

$$(1/4)$$

$$(1/2)$$

$$(1/6)$$

$$(1/12)$$

MULTIPLE CHOICE

Two independent events: $P(A) = 0.6$, $P(B) = 0.5$. What is $P(A \text{ and } B)$?

0.30

0.11

1.10

0.80

MULTIPLE CHOICE

A fair coin is flipped twice. What is $P(\text{first heads, second tails})$?

$$(1/4)$$

$$(1/2)$$

$$(3/4)$$

$$(1/3)$$

MULTIPLE CHOICE

A test has 10 multiple-choice questions, each with 4 options. If random guesses, what is $P(\text{all wrong})$?

$$(0.75)^{10}$$

$$(0.25)^{10}$$

$$1 - (0.25)^{10}$$

$$(0.50)^{10}$$

MULTIPLE CHOICE

Two archers: $P(\text{Alice hits target}) = 0.8$, $P(\text{Bob hits}) = 0.6$. What is $P(\text{both hit})$?

0.48

0.14

1.40

0.96

MULTIPLE CHOICE

A die is rolled three times. What is $P(\text{no sixes})$?

$$(125/216)$$

$$(1/216)$$

$$(25/36)$$

$$(5/6)$$

MULTIPLE CHOICE

$P(A) = 0.4$, $P(B) = 0.7$, A and B independent. What is $P(\text{neither occurs})$?

0.18

0.28

0.42

0.11

MULTIPLE CHOICE

A coin is flipped and a card drawn from a deck. What is $P(\text{tails and heart})$?

$$(1/8)$$

$$(1/4)$$

$$(1/2)$$

$$(1/13)$$