

STATISTICAL METHODS FOR BUSINESS.
First continuous assessment test (Probability Calculus).

1. Twenty cars are running in a car race. The number of ways of assigning the three medals (gold, silver, bronze) among the pilots is
- 57.
 - 6,840.
 - 8,000.
2. If events A and B are independent then:
- $P(A \cup B) = P(A) + P(B) - P(A \cap B)$.
 - $P(A \cap B) = P(A) P(B)$.
 - Both answers are true.
3. If $Y = 4 - 3X$, with X being a random variable, then:
- $E(Y) = 4 - 3 E(X)$.
 - $\text{Var}(Y) = -9\text{Var}(X)$.
 - Both answers.
4. The integral of the density function of a continuous random variable is:
- The probability function.
 - The distribution function.
 - None of the answers.
5. Given two independent random variables, namely $X \sim N(0, 3)$ and $Y \sim N(1, 4)$, the variable $X + Y$:
- Has $N(1, 7)$ distribution.
 - Has $N(1, 5)$ distribution.
 - Is not always normally distributed.

Time limit: 10 MINUTES

Scoring criteria	Right answer: +2 point
	Wrong answer: -1/2 point