1. Determine whether the following equation has two real solutions, one real solution, or two complex solutions. \(5x^2 + 6x + 5 = 0\)

2. Determine whether the following equation has two real solutions, one real solution, or two complex solutions. \(7x^2 + 13x + 3 = 0\)

3. Determine whether the following equation has two real solutions, one real solution, or two complex solutions. \(49x^2 + 588x + 36 = 0\)

4. Determine whether the following equation has two real solutions, one real solution, or two complex solutions. \(3x^2 + 7x + 1 = 0\)

5. Determine whether the following equation has two real solutions, one real solution, or two complex solutions. \(4x^2 + 32x + 16 = 0\)
   \(\text{[A]}\) cannot be determined \(\text{[B]}\) one real solution \(\text{[C]}\) two real solutions \(\text{[D]}\) two complex solutions

6. Determine whether the following equation has two real solutions, one real solution, or two complex solutions. \(x^2 + 2x + 6 = 0\)
   \(\text{[A]}\) one real solution \(\text{[B]}\) two real solutions \(\text{[C]}\) two complex solutions \(\text{[D]}\) cannot be determined

7. Determine whether the following equation has two real solutions, one real solution, or two complex solutions. \(7x^2 + 16x + 5 = 0\)
   \(\text{[A]}\) two complex solutions \(\text{[B]}\) cannot be determined \(\text{[C]}\) one real solution \(\text{[D]}\) two real solutions

8. Determine whether the following equation has two real solutions, one real solution, or two complex solutions. \(5x^2 + 2x + 2 = 0\)
   \(\text{[A]}\) cannot be determined \(\text{[B]}\) two complex solutions \(\text{[C]}\) two real solutions \(\text{[D]}\) one real solution

9. What kind of solutions does \(ax^2 - bx + c = 0\) have if \(b^2 - 4ac < 0\)?
   \(\text{[A]}\) one real solution \(\text{[B]}\) not enough information to tell \(\text{[C]}\) two real solutions \(\text{[D]}\) two complex solutions

10. Compare the quantities in Column A and Column B.
    
    \begin{align*}
    \text{Column A} & \quad \text{Column B} \\
    \text{the value of the discriminant} & \quad \text{the value of the discriminant} \\
    \text{of } x^2 + 3x - 5 = 0 & \quad \text{of } x^2 - 3x + 5 = 0 \\
    \text{[A]} & \quad \text{The quantity in Column A is greater.} \\
    \text{[B]} & \quad \text{The quantity in Column B is greater.} \\
    \text{[C]} & \quad \text{The quantities are equal.} \\
    \text{[D]} & \quad \text{The relationship cannot be determined from the information given.}
    \end{align*}
[1] two complex solutions
[2] two real solutions
[3] one real solution
[4] two real solutions
[5] B
[6] C
[7] D
[8] B
[9] D
[10] A