

Directions: Choose the letter of the correct answer.

1) What values of x will satisfy the equation $2x^2 - x - 1 = 0$?

- a) 1 and $\frac{1}{2}$
- b) - 1 and $-\frac{1}{2}$
- c) $-\frac{1}{2}$ and 1
- d) $\frac{1}{2}$ and - 1

2) Solve for x : $(x + 3)^2 - 25 = 0$

- a) $x_1 = 2, x_2 = -8$
- b) $x_1 = - 5, x_2 = - 4$
- c) $x_1 = -8, x_2 = 2$
- d) $x_1 = 5, x_2 = 4$

3) Let p and q be the roots of $x^2 - 5x + 7 = 0$. What is the value of $1/p + 1/q$?

- a) 3
- b) $\frac{3}{8}$
- c) $\frac{5}{7}$
- d) $\frac{10}{13}$

4) What is the nature of the roots of $5x^2 - 2x - 1 = 0$?

- a) real and distinct
- b) real and identical
- c) complex numbers

5) The sum of two numbers is 25 and their product is 150. Determine the numbers.

- a) 10 and 15
- b) 5 and 30
- c) 45 and 6
- d) 2 and 75