

Full Name :

Date:

Short Assessment 2

Time Allowed: 15 minutes

Total Marks: 15

1. Find the discriminant of the following quadratic expressions:

(a) $5x^2 - 2x - 2$

(b) $2x^2 + 4x + 2$

(2 marks)

2. Use the discriminant to determine the number of real roots of each of the following quadratic equations:

(a) $x^2 - 7x + 3 = 0$

(b) $3x^2 + 5x - 2 = 0$

(4 marks)

3. The quadratic equation $kx^2 - 5x + k = 0$ has repeated real roots.

Find the possible values of the constant k .

(4 marks)

4. (a) Find the discriminant of $3x^2 + 6x - p$ in terms of p .

(2 marks)

- (b) Given that the quadratic equation $3x^2 + 6x - p = 0$ has no real roots, find the set of possible values of p .

(3 marks)

- End of Test -