

Grade 8 - Second Unit Test

Practice Paper 1

Mathematics

Based on Maharashtra Board Syllabus (NEP 2025-26) - 2nd Quarter

Instructions:

- Duration: 1 hour
- Maximum marks: 20
- All questions are compulsory
- Show all your working clearly

Section A: Expansion Formulae (8 Marks)

1. Expand the following:

[4 marks]

a) $(x + 5)^2 =$ _____

b) $(a - 3)^2 =$ _____

c) $(2y + 1)^2 =$ _____

d) $(3p - 4)^2 =$ _____

2. Expand the following:

[4 marks]

a) $(m + 2)(m - 2) =$ _____

b) $(3x + 5)(3x - 5) = \underline{\hspace{2cm}}$

c) $(y + 1)(y + 3) = \underline{\hspace{2cm}}$

d) $(a - 4)(a - 2) = \underline{\hspace{2cm}}$

Section B: Factorisation of Algebraic Expressions (6 Marks)

3. Factorise the following:

[3 marks]

a) $4x + 8 = \underline{\hspace{2cm}}$

b) $3a^2 - 6a = \underline{\hspace{2cm}}$

c) $5p^2q + 10pq^2 = \underline{\hspace{2cm}}$

4. Factorise the following using identities:

[3 marks]

a) $x^2 - 25 = \underline{\hspace{2cm}}$

b) $y^2 + 6y + 9 = \underline{\hspace{2cm}}$

c) $a^2 - 10a + 25 = \underline{\hspace{2cm}}$

Section C: Division of Algebraic Expressions and Statistics (6 Marks)

5. Divide the following:

[3 marks]

a) $(6x^2 + 4x) \div 2x = \underline{\hspace{2cm}}$

b) $(10a^3 - 15a^2) \div 5a^2 = \underline{\hspace{2cm}}$

c) $(y^2 - 4) \div (y - 2) = \underline{\hspace{2cm}}$

6. Answer the following statistics questions:

[3 marks]

a) Find the mean of the data: 10, 20, 30, 40, 50. =

b) What is the mode of the data: 5, 7, 8, 7, 5, 7, 6? =

c) Find the median of the data: 1, 3, 5, 7, 9. =

End of Practice Paper 1

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