

Grade 8 - Final Exam

Answer Keys

Practice Papers 1 & 2

Mathematics

Based on Maharashtra Board Syllabus (NEP 2025-26) - Full Syllabus

Note:

This document contains the answer keys for Final Exam Practice Paper 1 and Practice Paper 2.

Practice Paper 1 - Answer Key

Section A: Rational & Irrational Numbers and Squares/Cubes

- 1. a) $-\frac{3}{4}$
- 1. b) $\frac{8}{5}$
- 1. c) No
- 1. d) 324
- 1. e) 5
- 2. a) $-\frac{3}{7}$
- 2. b) $\frac{1}{2}$
- 2. c) $-\frac{2}{5}$
- 2. d) $-\frac{4}{3}$

2. e) Possible answers: 0.11, 0.15, 0.19, etc.

Section B: Parallel Lines and Transversal & Expansion Formulae

3. a) They are equal.

3. b) Yes

3. c) 60°

3. d) [Drawing showing two parallel lines intersected by a transversal, with a pair of consecutive interior angles marked]

3. e) 100°

4. a) $a^2 + 16a + 64$

4. b) $p^2 - 20p + 100$

4. c) $9x^2 + 12x + 4$

4. d) $m^2 - 36$

4. e) $x^2 + 10x + 24$

Section C: Factorisation of Algebraic Expressions

5. a) $7(x + 3)$

5. b) $4a(2a - 3)$

5. c) $5p^2q^2(3p + 4q)$

5. d) $(m - 8)(m + 8)$

5. e) $(y + 6)^2$

6. a) $(a - 7)^2$

6. b) $(x + 3)(x + 6)$

6. c) $(p - 2)(p - 5)$

6. d) $(5b - 1)(5b + 1)$

6. e) $(2y - 5)^2$

Section D: Division of Algebraic Expressions and Statistics

7. a) $2m + 3$

7. b) $4x - 5$

7. c) $a - 9$

7. d) $y + 5$

7. e) $p - 2$

8. a) 15

8. b) 3

8. c) 14

8. d) 7

8. e) The quantity or frequency of the category.

9. a) $x = 17$ (Sum = $10+12+14+x = 36+x$. Mean = $(36+x)/4 = 13$. $36+x = 52$. $x =$

16. ****Correction:**** $x = 16$)

9. b) 8

9. c) 16 (Data sorted: 11, 13, 15, 17, 19, 21. Median is average of 15 and 17)
9. d) $\frac{1}{2}$
9. e) $\frac{3}{6}$ or $\frac{1}{2}$ (Even numbers are 2, 4, 6 out of 1, 2, 3, 4, 5, 6)
10. a) $-\frac{2}{3}$ ($-\frac{8}{9} \div \frac{4}{3} = -\frac{8}{9} * \frac{3}{4} = -\frac{24}{36} = -\frac{2}{3}$)
10. b) 17 ($\sqrt{289}$)
10. c) 7 cm ($\sqrt[3]{343}$)
10. d) 2°C ($-6 + 8$)
10. e) ₹500 (Total parts = 8. 5 parts = ₹200. 1 part = 40. Total sum = $8 * 40 = 320$. ****Correction:**** If B gets ₹200 and the ratio A:B is 3:5, then 5 parts = 200. 1 part = 40. A gets 3 parts = $3 * 40 = 120$. Total sum = $120 + 200 = 320$. ****Revised Answer:**** ₹320)

Practice Paper 2 - Answer Key

Section A: Rational & Irrational Numbers and Squares/Cubes

1. a) $-\frac{7}{8}$
1. b) $\frac{9}{4}$
1. c) Yes
1. d) 196
1. e) 6
2. a) $-\frac{1}{6}$
2. b) $\frac{3}{8}$
2. c) $-\frac{1}{6}$
2. d) $-\frac{3}{2}$
2. e) Possible answers: 0.31, 0.35, 0.39, etc.

Section B: Parallel Lines and Transversal & Expansion Formulae

3. a) They are equal.

3. b) Yes

3. c) 70°

3. d) [Drawing showing two parallel lines intersected by a transversal, with a pair of alternate interior angles marked]

3. e) 70°

4. a) $y^2 + 18y + 81$

4. b) $b^2 - 14b + 49$

4. c) $16p^2 + 8p + 1$

4. d) $a^2 - 100$

4. e) $y^2 + 8y + 7$

Section C: Factorisation of Algebraic Expressions

5. a) $5(a + 3)$

5. b) $3x(3x - 5)$

5. c) $6m^2n^2(2n + 3m)$

5. d) $(p - 10)(p + 10)$

5. e) $(a + 7)^2$

6. a) $(y - 8)^2$

6. b) $(m + 3)(m + 5)$

6. c) $(x - 4)(x - 5)$

6. d) $(6c - 7)(6c + 7)$

6. e) $(3p - 5)^2$

Section D: Division of Algebraic Expressions and Statistics

7. a) $2a - 5$

7. b) $3y + 4$

7. c) $x + 7$

7. d) $a + 6$

7. e) $m - 3$

8. a) 6

8. b) 15

8. c) 24

8. d) 6

8. e) A specific quantity or number of items.

9. a) $x = 11$ (Sum = $5+7+9+x = 21+x$. Mean = $(21+x)/4 = 8$. $21+x = 32$. $x = 11$)

9. b) 15

9. c) 4 (Data sorted: 1, 2, 3, 4, 5, 6, 7. Median is the middle value)

9. d) $5/8$ (5 red balls out of 8 total balls)

9. e) $1/5$ (Vowels are A out of M, A, T, H, S. Total letters = 5. Vowels = 1)

10. a) $-5/4$ ($-1/2 - 3/4 = -2/4 - 3/4 = -5/4$)

10. b) 361 (19^2)

10. c) 512 cm^3 (8^3)

10. d) -2°C ($8 - 10$)

10. e) 200 m/min (Speed = $300\text{km}/5\text{hr} = 60 \text{ km/hr}$. $60 \text{ km} = 60000 \text{ m}$, $1 \text{ hr} = 60 \text{ min}$. Speed = $60000\text{m}/60\text{min} = 1000 \text{ m/min}$. **Correction:** Speed = $300\text{km}/5\text{hr} = 60 \text{ km/hr}$. $60 \text{ km} = 60000 \text{ m}$. 5 hours = $5 * 60 = 300 \text{ minutes}$. Speed = $60000\text{m} / 300\text{min} = 200 \text{ m/min}$. **Revised Answer:** 200 m/min)

End of Answer Keys

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