Grade 8 - First Unit Test

Answer Keys

Practice Papers 1 & 2

Mathematics

Based on Maharashtra Board Syllabus (NEP 2025-26) - 1st Quarter

Note:

This document contains the answer keys for First Unit Test Practice Paper 1 and Practice Paper 2.

Practice Paper 1 - Answer Key

Section A: Rational and Irrational Numbers

1. a) -5/7

1. b) 4/10 or 2/5

1. c) No

1. d) Possible answers: 5/8, 11/16, etc. (Need to find fractions between 4/8 and 6/8)

2. a) -5/10 or -1/2 (-6/10 + 1/10)

2. b) 5/8 (7/8 - 2/8)

2. c) -6/36 or -1/6

2. d) -90/60 or -3/2 (5/6 * -18/10 = (5 * -18) / (6 * 10) = -90/60 = -3/2)

Section B: Parallel Lines and Transversal

3. a) They are supplementary (sum is 180°).

3. b) Yes

3. c) [Drawing showing two parallel lines intersected by a transversal, with a pair of angles outside the parallel lines on opposite sides of the transversal marked]

4. a) 75 ° (Corresponding angles are equal)

4. b) 75 ° (Vertically opposite angles are equal)

4. c) 75 ° (Alternate exterior angle to ∠1, or 180 - ∠4 where ∠4 is adjacent to ∠1. ∠4 = 180 - 75 = 105. Consecutive interior with ∠4 is ∠5 = 180 - 105 = 75. Alternate exterior to ∠1 is ∠8 = 75. **Correction:** ∠8 is consecutive interior to ∠3. ∠3 = 75. ∠8 + ∠3 = 180 if lines are parallel. ∠8 = 180 - 75 = 105. Alternate exterior to ∠1 is ∠8. ∠1 = ∠8 if lines are parallel. So ∠8 = 75. Let's assume the diagram implies parallel lines. **Revised Answer:** 75 °)

Section C: Squares and Cube Roots

5. a) 225

5. b) 12

5. c) Yes (15 * 15 = 225)

6. a) 64

6. b) 3

6. c) No ($10^3 = 1000$, $4^3 = 64$)

Practice Paper 2 - Answer Key

Section A: Rational and Irrational Numbers

1. a) -2/3

1. b) 75/100 or 3/4

1. c) Yes (√9 = 3, which is a rational number)

1. d) Possible answers: 7/24, 5/18, etc. (Need to find fractions between 8/24 and 12/24)

2. a) -1/14 (-4/14 + 3/14)

2. b) 2/6 or 1/3 (5/6 - 3/6)

2. c) -40/60 or -2/3

2. d) -112/112 or -1 (-7/8 * 16/14 = (-7 * 16) / (8 * 14) = -112/112 = -1)

Section B: Parallel Lines and Transversal

3. a) They are equal.

3. b) Yes

3. c) [Drawing showing two parallel lines intersected by a transversal, with a pair of angles in corresponding positions (e.g., top-left and top-left) marked]

4. a) 110 ° (Alternate interior angles are equal)

4. b) 70 ° (180 - 110)

4. c) 70 ° (Consecutive interior angles are supplementary. 110 + 70 = 180)

Section C: Squares and Cube Roots

5. a) 144

5. b) 14

5. c) Yes (20 * 20 = 400)

6. a) 125

6. b) 4

6. c) No ($5^3 = 125$, $4^3 = 64$)

End of Answer Keys