

Grade 7 - Final Exam

Practice Paper 2

Mathematics

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

Instructions:

- Duration: 2 hours
- Maximum marks: 50
- All questions are compulsory
- Show all your working clearly

Section A: Rational Numbers and Integers (10 Marks)

1. Solve the following:

[5 marks]

a) Add: $(-15) + (-10) =$ _____

b) Subtract: $(-8) - 12 =$ _____

c) Multiply: $7 \times (-9) =$ _____

d) Divide: $48 \div (-6) =$ _____

e) Write the multiplicative inverse of $-7/8$. = _____

2. Solve the following operations on rational numbers:

[5 marks]

a) Add: $(-1/4) + 2/3 =$ _____

b) Subtract: $5/6 - 1/4 =$ _____

c) Multiply: $(3/5) \times (-10/9) =$ _____

d) Divide: $(-2/7) \div (4/14) =$ _____

e) Convert 0.875 into a rational number (fraction in simplest form). = _____

Section B: Indices and Algebraic Expressions (10 Marks)

3. Solve the following using laws of indices:

[5 marks]

a) $4^3 \times 4^5 =$ _____

b) $12^{10} \div 12^6 =$ _____

c) $(6^4)^2 =$ _____

d) $(x^5)^4 =$ _____

e) Write 81 in index form with base 3. = _____

4. Solve the following algebraic expressions:

[5 marks]

a) Add: $(6a - 4b) + (3a + 7b) =$ _____

b) Subtract: $(12p + 5q) - (8p - 2q) =$ _____

c) Simplify: $4(m - 3) + 5m =$ _____

d) Find the value of $y^2 - 5y + 6$ when $y = 4$. = _____

e) Identify the constant term in the expression $5x^2 - 3x + 7$. = _____

Section C: Simple Equations and Geometry (10 Marks)

5. Solve the following simple equations:

[5 marks]

a) $a + 15 = 40$. Find a . = $a =$ _____

b) $b - 10 = 22$. Find b . = $b =$ _____

c) $6c = 54$. Find c . = $c =$ _____

d) $r/7 = 6$. Find r . = $r =$ _____

e) $4x - 3 = 21$. Find x . = $x =$ _____

6. Answer the following geometry questions:

[5 marks]

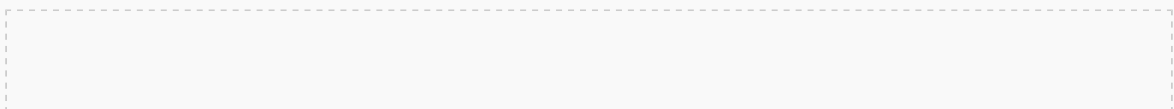
a) If two lines intersect, the vertically opposite angles are _____. (equal/unequal)

b) If two angles are complementary and one is 70° , find the other. = _____ $^\circ$

c) If two angles are supplementary and one is 45° , find the other. = _____ $^\circ$

d) What is the relationship between consecutive interior angles when a transversal intersects two parallel lines? = _____

e) Draw a rough sketch of two parallel lines intersected by a transversal.



Section D: Properties of Triangles and Measurement (20 Marks)

7. Answer the following triangle questions:

[5 marks]

- a) The sum of angles in a triangle is _____ degrees.
- b) If the angles of a triangle are 60° , 60° , and z° , find z . $z =$ _____ $^\circ$
- c) In an isosceles triangle, if two angles are 50° and 50° , what is the measure of the third angle? $=$ _____ $^\circ$
- d) If two sides of a triangle are 3 cm and 7 cm, the third side must be between _____ cm and _____ cm.
- e) Can a triangle have sides 5 cm, 7 cm, 10 cm? (Yes/No) $=$ _____

8. Calculate the perimeter and area of the following shapes:

[5 marks]

- a) A square with side 18 cm. = Perimeter: _____ cm, Area: _____ sq cm
- b) A rectangle with length 30 cm and width 15 cm. = Perimeter: _____ cm, Area: _____ sq cm

9. Convert the following measurements:

[5 marks]

- a) 12 km 300 m to meters. $=$ _____ m
- b) 5 liters 800 ml to milliliters. $=$ _____ ml
- c) 10 kg 50 g to grams. $=$ _____ g
- d) 3 hours 15 minutes to seconds. $=$ _____ seconds
- e) ₹20.75 to paise. $=$ _____ paise

10. Word Problems:

[5 marks]

a) The difference between two integers is 5. If one integer is -3, find the other integer. (Two possible answers) = _____ or _____

b) A fruit vendor bought mangoes for ₹600 and sold them for ₹550. Find the loss.
= ₹ _____

c) A student spends $\frac{1}{4}$ of his money on books and $\frac{1}{8}$ on stationery. What fraction of his money did he spend in total? = _____

d) If the temperature is -5°C and it drops by 4°C , what is the new temperature? = _____ $^{\circ}\text{C}$

e) A car travels 300 km in 5 hours. What is its average speed in meters per minute? = _____ m/min

End of Practice Paper 2

© 2025 Math Solver