

Mathematics 9: 1st Term Examination Reviewer

Mathematics · Practice Test · 37 Questions

1. Which term describes $\angle 2$ and $\angle 3$?

- A) Same-side interior angles
- B) Corresponding angles
- C) Alternate interior angles
- D) Vertical angles

2. Which pair represents corresponding angles?

- A) $\angle 2$ and $\angle 7$
- B) $\angle 3$ and $\angle 2$
- C) $\angle 4$ and $\angle 2$
- D) $\angle 1$ and $\angle 3$

3. Which pair represents alternate interior angles?

- A) $\angle 1$ and $\angle 7$
- B) $\angle 2$ and $\angle 3$
- C) $\angle 4$ and $\angle 8$
- D) $\angle 5$ and $\angle 7$

4. What is the relationship between $\angle 4$ and $\angle 2$?

- A) Corresponding angles
- B) Vertical angles
- C) Same-side interior angles
- D) Alternate interior angles

5. Two angles are complementary when their measures have a sum of:

- A) 270°
- B) 90°
- C) 360°
- D) 180°

6. What is the sum of supplementary angles?

- A) 180°
- B) 360°
- C) 90°
- D) 270°

7. If $m\angle 5 = 118^\circ$, what is $m\angle 7$?

- A) 62°
- B) 72°
- C) 118°
- D) 180°

8. If $m\angle 4 = 132^\circ$, what is $m\angle 7$?

- A) 48°
- B) 58°
- C) 132°
- D) 180°

9. Which expression correctly defines the slope of a nonvertical line?

- A) Change in x divided by change in y
- B) Change in y divided by change in x
- C) Product of the intercepts
- D) Number of points on the line

10. In the equation $y = -2x + 7$, what is the y-intercept?

- A) -2
- B) x
- C) 7
- D) -2x

11. Determine the slope of the line passing through (-2, 8) and (2, -4).

- A) 3
- B) -3
- C) -2
- D) 2

12. Which equation has a slope of -3 and an x-intercept of 4?

- A) $y = 3x - 12$
- B) $y = -3x - 12$
- C) $y = -3x + 12$
- D) $y = 3x + 12$

13. When solving a linear equation by setting $y = 0$, what are you finding?

- A) y-intercept
- B) Slope
- C) Range
- D) x-intercept

14. A delivery service uses $C = 12d + 40$. What does 40 represent?

- A) The initial fee before distance is added
- B) The cost per kilometer
- C) The total distance traveled
- D) The final delivery cost

15. A computer shop charges a fixed fee of PHP40 plus PHP10 per hour. If a student has PHP120, which equation determines h?

- A) $40h + 10 = 120$
- B) $10h + 40 = 120$
- C) $120h + 10 = 40$
- D) $10h - 40 = 120$

16. Using $10h + 40 = 120$, why is 8 hours the greatest possible whole-number answer?

- A) Eight hours is the first possible value.
- B) Eight hours makes the membership fee zero.
- C) Eight hours costs PHP120, while 9 hours costs more than the budget.
- D) Eight hours gives the largest unused amount.

17. Solve: $5x + 7 = 32$

- A) 25
- B) 7
- C) 5
- D) 3

18. Two nonvertical lines are parallel if they have:

- A) equal slopes
- B) opposite y-intercepts
- C) reciprocal slopes
- D) slopes whose product is -1

19. Which condition guarantees that two distinct lines are perpendicular?

- A) Their slopes are equal.
- B) Their slopes have a product of -1.
- C) Their y-intercepts are equal.
- D) Their x-intercepts are equal.

20. A line has a slope of $-3/5$. What is the slope of a line parallel to it?

- A) $5/3$
- B) $-5/3$
- C) $3/5$
- D) $-3/5$

21. Line r is $y = -4x + 3$. Line s is $y = 1/4x - 7$. What conclusion is justified?

- A) The lines are parallel.
- B) The lines are perpendicular.
- C) The lines are the same line.
- D) The lines have equal y-intercepts.

22. Which polygon has exactly four sides, four angles, and four vertices?

- A) Triangle
- B) Circle
- C) Quadrilateral
- D) Pentagon

23. A quadrilateral with two pairs of opposite sides parallel is called a:

- A) Kite
- B) Trapezoid
- C) Parallelogram
- D) Pentagon

24. Why is every square a rhombus, but not every rhombus a square?

- A) A rhombus has no congruent sides.
- B) A square has four congruent sides and four right angles, while a rhombus does not necessarily have right angles.
- C) A square has only two congruent sides.
- D) A rhombus has no parallel sides.

25. A quadrilateral has two pairs of parallel sides and four congruent sides, but no right angles are given. What is its most specific classification?

- A) Rectangle
- B) Rhombus
- C) Kite
- D) Trapezoid

26. What is the sum of the interior angles of a quadrilateral?

- A) 360°
- B) 90°
- C) 270°
- D) 180°

27. Three angles of a quadrilateral measure 72° , 91° , and 84° . What is the fourth angle?

- A) 103°
- B) 113°
- C) 123°
- D) 93°

28. Which property of the diagonals of a parallelogram is always true?

- A) They are always perpendicular.
- B) They always have equal lengths.
- C) They bisect each other.
- D) They form four right angles.

29. In parallelogram PQRS, diagonals PR and QS intersect at O. If $PO = 4x - 3$ and $OR = 21$, what is x ?

- A) 4
- B) 5
- C) 6
- D) 7

30. In parallelogram RSTU, $m\angle R = 68^\circ$. What is $m\angle S$?

- A) 68°
- B) 112°
- C) 90°
- D) 122°

31. Opposite sides of a parallelogram are represented by $5x + 2$ and 32. Find x .

- A) 5
- B) 6
- C) 7
- D) 8

32. Which is NOT always a property of a parallelogram?

- A) Opposite sides are congruent.
- B) Opposite angles are congruent.
- C) Diagonals bisect each other.
- D) Diagonals are always congruent.

33. Which statement is NOT necessarily true about parallelogram ABCD?

- A) $AB \cong CD$
- B) $BC \cong AD$
- C) AC is perpendicular to BD
- D) The diagonals bisect each other.

34. In parallelogram ABCD, if $DC = 22$, what is AB ?

- A) 11
- B) 22
- C) 44
- D) 14

35. If $EC = 14$ in parallelogram ABCD, how long is AC?

- A) 7
- B) 14
- C) 28
- D) 42

36. If $\angle BAC = 48^\circ$ and $AB \parallel DC$, what is the angle formed by DC and AC at C?

- A) 32°
- B) 42°
- C) 48°
- D) 90°

37. In parallelogram ABCD, if $\angle A = 80^\circ$, what is $\angle B$?

- A) 80°
- B) 90°
- C) 100°
- D) 120°