## QUIZEN - Quadrilaterals(9M08)

Learning Level 1
Q - Remembering (knowledge-based
questions)
U - Understanding
(comprehension-based questions)

Learning Level 2
I - Applying (application-based questions)
Z - Analyzing (analysis-based questions)

Learning Level 3
E-Evaluating (evaluation-based questions)
N-Creating (creation-based
questions)

## Learning Level 1

1. Define the Mid-Point Theorem for a line segment.
2. What is the Mid-Point Theorem for a line segment in a triangle?
3. If a line segment $A B$ is divided into two equal parts at point $M$, what is the ratio of the areas of triangle $A M B$ and triangle $A B C$ ?
4. Name a quadrilateral where all sides are of equal length.
5. What is the sum of the interior angles in a quadrilateral?

## Learning Level 2

6. Given a parallelogram $A B C D$ where $E$ and $F$ are midpoints of $A B$ and $C D$ respectively, prove that $E F$ is parallel to $A B$ and $C D$.
7. In a trapezium $A B C D, A B$ is parallel to $C D$. If $M$ and $N$ are midpoints of $A D$ and $B C$ respectively, prove that $M N$ is parallel to $A B$ and $C D$.
8. In a quadrilateral $A B C D, P, Q, R$, and $S$ are midpoints of $A B, B C, C D$, and $D A$ respectively. Prove that PQRS is a parallelogram.
9. In a parallelogram $A B C D, E$ and $F$ are midpoints of $A B$ and $C D$ respectively. Prove that the diagonals AC and BD bisect each other at point O , which is also the midpoint of EF .
10.In a rhombus $A B C D, E$ and $F$ are midpoints of $A B$ and $B C$ respectively. If $E F$ intersects the diagonals $A C$ and $B D$ at $P$ and $Q$ respectively, prove that $P Q$ is perpendicular to $E F$.

## Learning Level 3

11. Prove that the Mid-Point Theorem is true for any line segment.
12. In a trapezium $A B C D, A B$ is parallel to $C D$. If $M$ and $N$ are midpoints of $A D$ and $B C$ respectively, prove that AMN and BNM are congruent triangles.
13. In a quadrilateral $A B C D, E, F, G$, and $H$ are midpoints of $A B, B C, C D$, and $D A$ respectively. Prove that EFGH is a parallelogram.
14.In a rectangle $A B C D, E$ and $F$ are midpoints of $A B$ and $B C$ respectively. If $E F$ intersects $A D$ at point $G$, prove that $A G=G D$.
14. In a kite-shaped $A B C D, E$ and $F$ are midpoints of $A B$ and $C D$ respectively. If $E F$ intersects $A D$ at point $G$, prove that $A G=G D$ and $E G=F G$.
