1. In a triangle, if D, E, and F are midpoints of sides AB, BC, and CA, what is formed by joining D, E, and F?
A) A parallelogram
B) A square
C) Four congruent triangles
D) A rectangle (C)
Explanation: Joining the midpoints of the sides of a triangle divides it into four congruent triangles.

2. What does the Mid-point Theorem state?
A) The segment joining the midpoints is parallel to the third side
B) The segment joining the midpoints is equal to the third side
C) The segment joining the midpoints is perpendicular to the third side
D) The segment joining the midpoints is half the third side (A)
Explanation: The Mid-point Theorem states that the segment joining the midpoints of two sides of a triangle is parallel to the third side.

3. In triangle ABC, if D and E are midpoints of AB and AC, and DE is parallel to BC, what is true?
A) DE = BC B) DE = 2 BC
C) DE = 1/2 BC D) DE is perpendicular to BC (C)
Explanation: According to the Mid-point Theorem, DE = 1/2 BC.

4. If three parallel lines cut off equal intercepts on one transversal, they will cut off equal intercepts on:
A) Any transversal
B) Only one transversal
C) No transversal
D) Only horizontal transversals (A)
Explanation: Parallel lines that cut equal intercepts on one transversal will cut equal intercepts on any transversal.

5. What is the property of the triangles formed by joining the midpoints of a triangle?
A) They are similar
B) They are congruent
C) They are different in size
D) They are not related (B)
Explanation: The triangles formed by joining the midpoints of a triangle are congruent to each other.

6. The Mid-point Theorem is used to prove which of the following?
A) The Pythagorean Theorem
B) The Angle Bisector Theorem
C) The Basic Proportionality Theorem
D) The Area Theorem (C)
Explanation: The Mid-point Theorem is used to prove the Basic Proportionality Theorem.

7. What happens when a line segment is drawn joining the midpoints of two sides of a triangle?
A) It bisects the triangle into two equal areas
B) It creates a quadrilateral
C) It is perpendicular to the third side
D) It divides the triangle into two unequal parts (A)
Explanation: The segment joining the midpoints divides the triangle into two equal-area triangles.

8. If three parallel lines intersect two transversals and cut off equal intercepts on one, what happens on the second?
A) The intercepts are unequal
B) The intercepts are parallel
C) The intercepts are equal
D) The intercepts are perpendicular (C)
Explanation: The parallel lines will cut off equal intercepts on both transversals.

9. What does the Basic Proportionality Theorem (Thales' Theorem) deal with?
A) Properties of parallelograms
B) Proportionality in triangles when a line is parallel to one side
C) Angle bisectors in triangles
D) The area of triangles (B)
Explanation: The Basic Proportionality Theorem deals with the proportionality in triangles when a line is parallel to one side.

10. In △ABC, if D and E are midpoints of sides AB and AC, what type of triangle is formed by DE, BC, and the mid-segment?
A) Similar triangle
B) Equilateral triangle
C) Scalene triangle
D) Right-angled triangle (A)
Explanation: The smaller triangle formed by the mid-segment is similar to the original triangle.