Name: _____

CC Geometry

Squares

1) Which statement is *always* true about a parallelogram?

A) Adjacent sides are congruent.
B) Diagonals bisect each other.
C) Diagonals bisect the angles.
D) Diagonals are perpendicular.

2) Which statement is *not always* true about a parallelogram?

A) Diagonals are congruent.
B) Opposite sides are congruent.
C) Opposite sides are parallel.
D) Opposite angles are congruent.

3) A parallelogram must be a rhombus if the

A) opposite sides are congruent
B) diagonals are congruent
C) diagonals are perpendicular
D) opposite angles are congruent

4) Which quadrilateral must have congruent diagonals?

A) rhombus
B) rectangle
C) parallelogram
D) trapezoid

5) Which statement is *not* true for any given parallelogram ABCD?

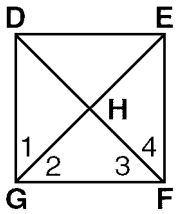
A) $\overline{AB} \cong \overline{DC}$
B) $m\angle B + m\angle C = 180°$
C) $\angle A \cong \angle C$
D) $\overline{AC} \perp \overline{DB}$

6) Which statement is *always* true?

A) Rhombuses are squares.
B) Parallelograms are rectangles.
C) Squares are rectangles.
D) Rectangles are squares.

Questions 7 through 10 refer to the following:

In the diagram below, DEFG is a square with diagonals $\overline{GE}$ and $\overline{DF}$.



7) Find m∠4.

8) Find m∠DHG.

9) If DE = 5x - 14 and EF = 3x - 6, find the value of x.

10) If DF = 2x - 17 and GE = 28 - 3x, find the value of x.

1) B 2) A 3) C 4) B 5) D

6) C

7) 45°

8) 90°

9) 4

10) 9