

## GEOMETRIC COMPARISON QUESTIONS

Answer each of the following questions as true or false. Provide an explanation for false statements.

1. All diameters of a circle are chords.

True

2. All chords are diameters of a circle.

False. Although a chord joins two points on a circle it doesn't have to pass through the centre (as the diameter does).

3. All diameters of a circle right bisect each other.

False, all diameters bisect each other, but not necessarily at a right angle.

4. All diameters of a circle bisect each other.

true

5. All rectangles are quadrilaterals.

true

6. All quadrilaterals are rectangles.

False. A quadrilateral is simply any four-sided polygon while a rectangle is a quadrilateral with opp. sides parallel & equal in length & adjacent sides

7. All squares are rectangles.

true

perpendicular

8. All rectangles are squares.

false. A square must have all 4 sides equal in length but a rectangle does not.

9. All squares and rectangles are parallelograms.

true

10. All parallelograms are squares.

false. A square must have 4 equal sides with opposite sides parallel and adjacent sides perpendicular.

11. All rhombi are squares.

false. A square must contain adjacent sides that are perpendicular but a rhombus does not.

12. All trapezoids are parallelograms.

false. A trapezoid has one set of parallel sides but a parallelogram has two sets of parallel sides.

13. Medians of a triangle bisect the angles opposite to them.

False. The median bisect the side of the triangle but not necessarily the angle.

14. All angle bisectors are medians of a triangle.

false. The angle bisector bisects the angle while the median bisects a side.