

NAME: _____

7. (a) Define *scalene triangle*. (b) Define *acute triangle*.

If the diagonals \overline{AC} and \overline{BD} bisect each other at E , then $\overline{AE} \cong \overline{EC}$ and $\overline{BE} \cong \overline{ED}$. Since $\overline{AC} \cong \overline{BD}$, all
[1] four segments are equal. Thus, the triangles formed are isosceles.

[2] only if it is also equilateral

[3] Check students' work.

[4] the angles have equal measures

No, because one angle is a right angle, the other two angles have a sum of 90° ; therefore both must be
[5] less than 90° .

[6] Answers may vary. Check students' work.

(a) A(n) scalene triangle is a triangle that contains three sides of unequal length.

[7] (b) A(n) acute triangle is a triangle that contains three acute angles.