

Review Problems

p. 162 #1, 2, 7, 9, 11, 15-17

p. 321 #7-11, 19-20

Triangle Classification

Classify Triangles by Sides:

Equilateral – a triangle with 3 congruent sides

Isosceles – a triangle with at least 2 congruent sides

Scalene – a triangle with no congruent sides

Classify Triangles by Angles:

Acute – a triangle in which all angles are acute

Equiangular – a triangle in which all angles are congruent

Right – a triangle in which one angle is a right angle

Obtuse – a triangle in which one angle is obtuse

If a triangle is equilateral, then it is equiangular. If a triangle is equiangular, then it is equilateral.

Very important: Know the definitions of leg, base, and vertex angle in an isosceles triangle.

Definitions

Exterior Angle – an angle that is adjacent to and supplementary to an interior angle of a triangle

Midsegment (or midline) – a segment that joins the midpoint of 2 sides of a triangle

Congruent Figures – figures that have the same size and shape

(Two polygons are congruent if ALL pairs of corresponding parts (angles and sides) are congruent.)

CPCTC – Corresponding Parts of Congruent Triangles are Congruent

Median – a segment drawn from the vertex to the midpoint of the opposite side

Altitude – a segment drawn from the vertex that is perpendicular to the opposite side (or an extension of it)

Triangle Congruence Postulates

SSS – If 3 sides of one triangle are congruent to the 3 corresponding sides of another triangle, then the triangles are congruent.

SAS – If 2 sides and the included angle of one triangle are congruent to the corresponding 2 sides and included angle of another triangle, then the triangles are congruent.

ASA – If 2 angles and the included side of one triangle are congruent to the corresponding 2 angles and included side of another triangle, then the triangles are congruent.

AAS – If 2 angles and a non-included side of one triangle are congruent to the 2 corresponding angles and non-included side of another triangle, then the 2 triangles are congruent

HL (For Right Triangles Only) – If the hypotenuse and a leg of a right triangle are congruent to the hypotenuse and leg of a second right triangle, then the 2 triangles are congruent.

Theorems

The sum of the measures of the interior angles of a triangle is 180 degrees.

The measure of an exterior angle of a triangle is equal to the sum of the measures of the two remote interior angles.

The midsegment (or midline) of a triangle is parallel to the third side and its length is half the length of the third side.

Base Angle Theorem – If 2 sides of a triangle are congruent, then the angles opposite them are congruent. Converse is true: If 2 angles of a triangle are congruent, then the sides opposite them are congruent.

No Choice Theorem – If 2 angles of one triangle are congruent to 2 angles of a second triangle, then the third angles are congruent.

Problems Worth Another Look

p. 102 #11, 15

p. 127 #4

p. 135 #6

p. 139 #1-4

Any proof we did in class

p. 145 #6, 10, 12

p. 152 #8, 11, 25

p. 298 #1, 2, 4, 6, 7, 9, 16, 18

Any problem on the other review sheet

Any proof we had for homework