<table>
<thead>
<tr>
<th>Statement</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>If a transversal makes equal alternate angles on two lines then the lines are parallel</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>The angles in any triangle add to 180 degrees</td>
<td><img src="image" alt="Diagram" /></td>
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<tr>
<td>Two lines are parallel if, and only if, for any transversal, the corresponding angles are equal</td>
<td><img src="image" alt="Diagram" /></td>
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<tr>
<td>Each exterior angle of a triangle is equal to the sum of the interior opposite angles</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>The angle opposite the greater of two sides is greater than the angles opposite the lesser</td>
<td><img src="image" alt="Diagram" /></td>
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<tr>
<td>Two sides of a triangle are together greater than the third</td>
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</tbody>
</table>
Vertically opposite angles are equal

Congruent Triangles (S.S.S.)

Congruent Triangles (S.A.S.)

Congruent Triangles (A.S.A.)

Congruent Triangles (R.H.S.)

In an isosceles triangle the angles opposite the equal sides are equal
In a parallelogram, opposite sides are equal, and opposite angles are equal

\[ \begin{align*}
A &= C \\
B &= D
\end{align*} \]

The diagonals of a parallelogram bisect each other

If three parallel lines cut off equal segments on some transversal line, then they will cut off equal segments on any other transversal

Let ABC be a triangle. If a line l is parallel to BC and cuts [AB] in the ratio m:n, then it also cuts [AC] in the same ratio

\[ \frac{ADI}{10BL} = \frac{LDL}{1BE} \]

If two triangles are similar then their sides are proportional

\[ \frac{D}{A} = \frac{E}{B} = \frac{F}{C} \]

[Pythagoras] In a right-angled triangle the square of the hypotenuse is the sum of the squares of the other two sides

\[ a^2 + b^2 = c^2 \]
For a triangle, base x height does not depend on the choice of base

\[ \frac{1}{2} \times b \times h \]

A diagonal of a parallelogram bisects the area

\[ A = B \]

The angle at the centre of a circle standing on a given arc is twice the angle at any point of the circle standing on the same arc

\[ B = 2 \times A \]

Opposite angles of a cyclic quadrilateral are equal to 180 degrees

\[ A + C = 180^\circ \]
\[ B + D = 180^\circ \]

Each tangent is perpendicular to the radius that goes to the point of contact

\[ 90^\circ \]

The perpendicular from the centre to a chord bisects the chord

The angle inside a semi-circle is a right angle

\[ 90^\circ \]