Exam Hunter
Education Consulting

GEOMETRY
Lines and Angles

Lines

A line is defined as a straight line that extends without end

A line is can be defined as PQ or l

A line segment can be defined as $\overline{PQ}$

Line doesn't have end point

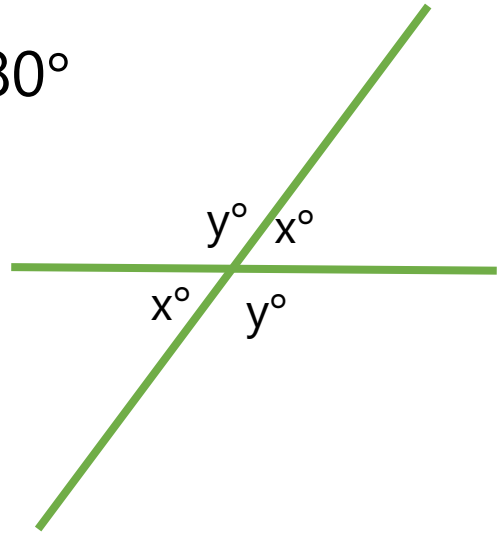
Line section have end points ; ends points are P and Q for $\overline{PQ}$

Copyright by PL Consulting

Intersecting lines and angles

If two lines intersect, the opposite angles are called vertical angles and have the same measure

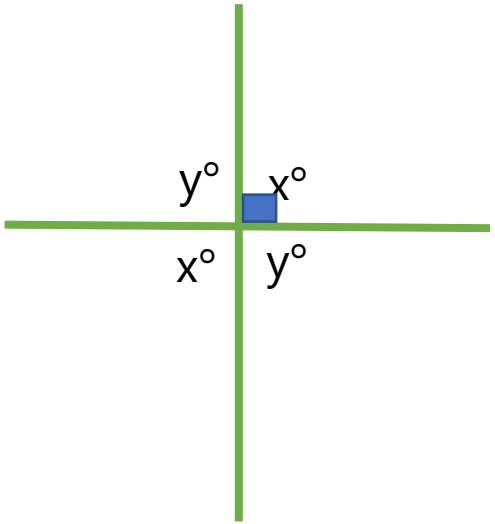
Angle in a circle = 360°
Angle of one side of a line = 180°

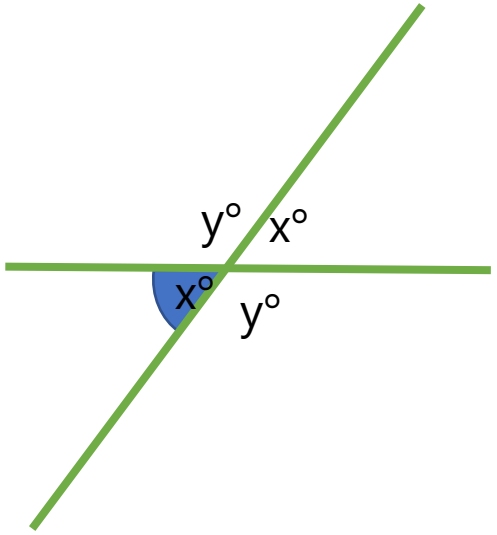


Copyright by PL Consulting

Vertical Angles

Acute angles : less than 90 degrees
Right angles : 90 degrees,
Obtuse angles : between 90 degrees and 180 degrees
Straight angles: exactly 180 degrees.





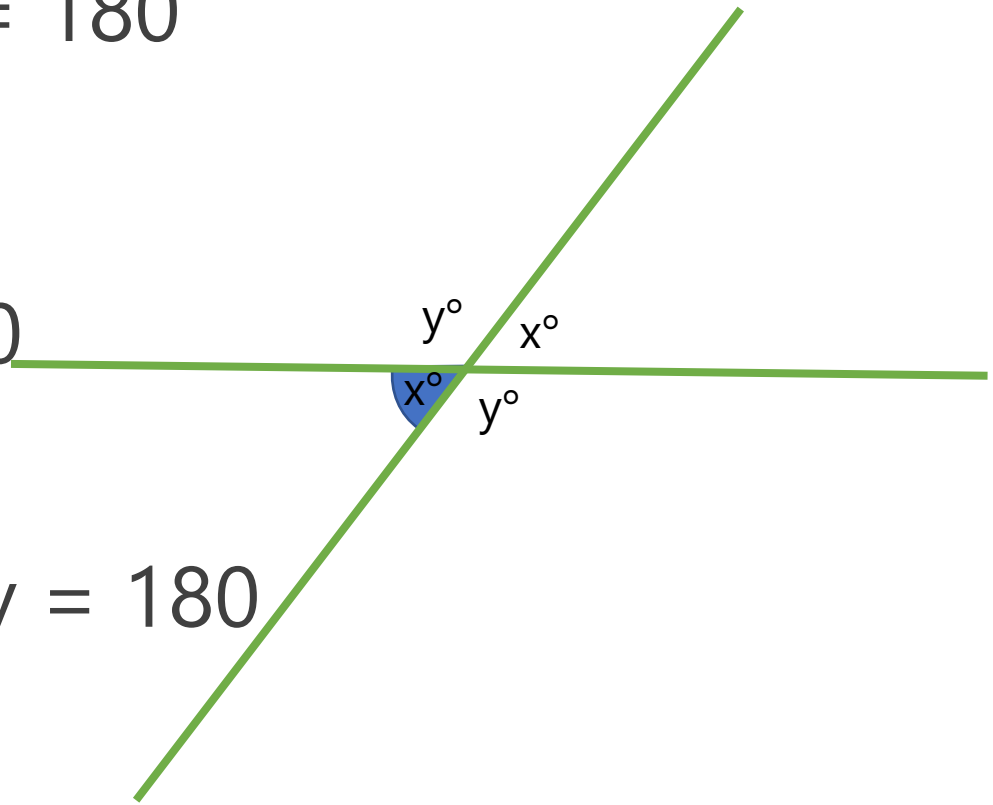
Copyright by PL Consulting

Example

1. $2x = y \rightarrow x+y = 180$

$X+2x = 180$

$3x = 180 \rightarrow x = 60$



2. $X = 25° \rightarrow 25+y = 180$

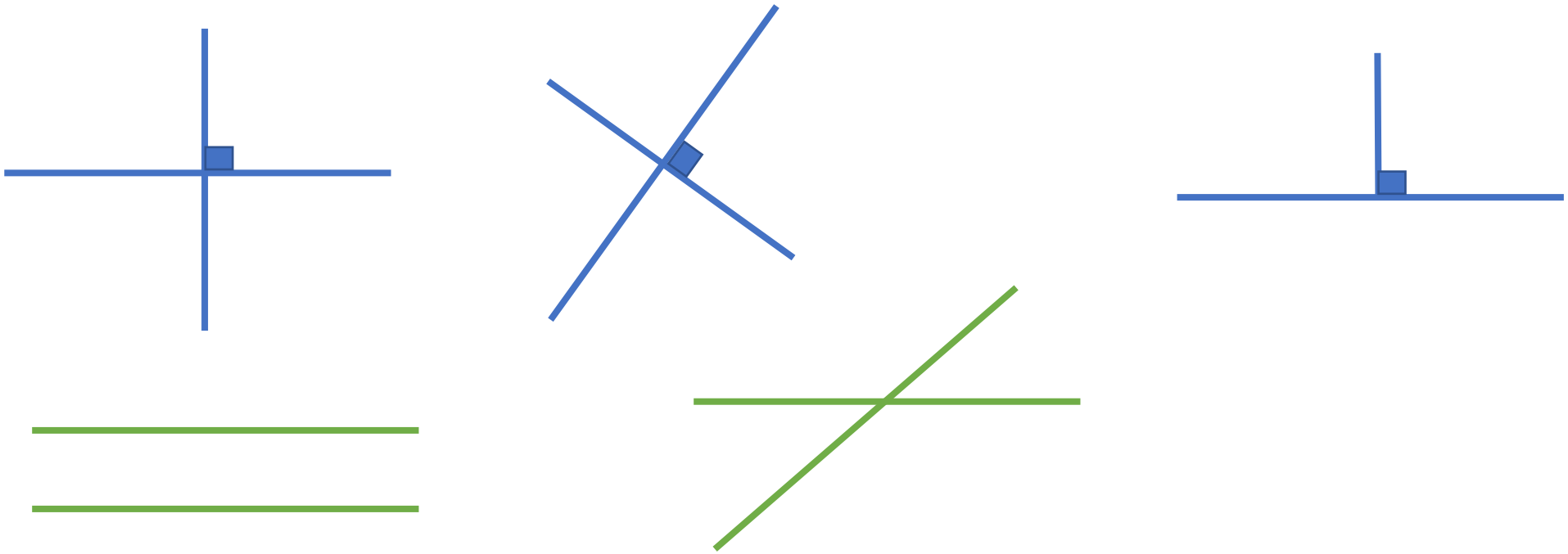
$Y = 180-25 = 155$

Copyright by PL Consulting

Perpendicular lines

An angle that has a measure of 90° is a right angle.

Two lines intersect (or meet) at right angles are **perpendicular.**
Perpendicular symbol: $l_1 \perp l_2$

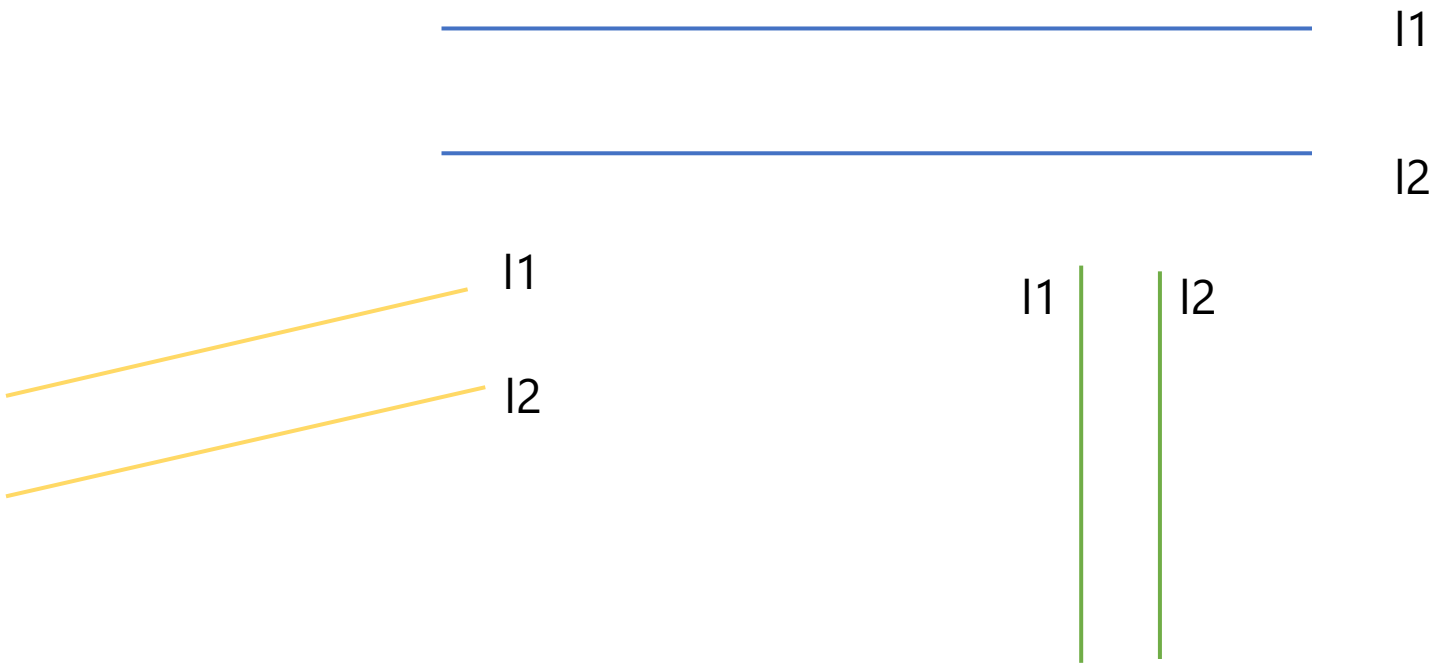


Copyright by PL Consulting

Parallel lines

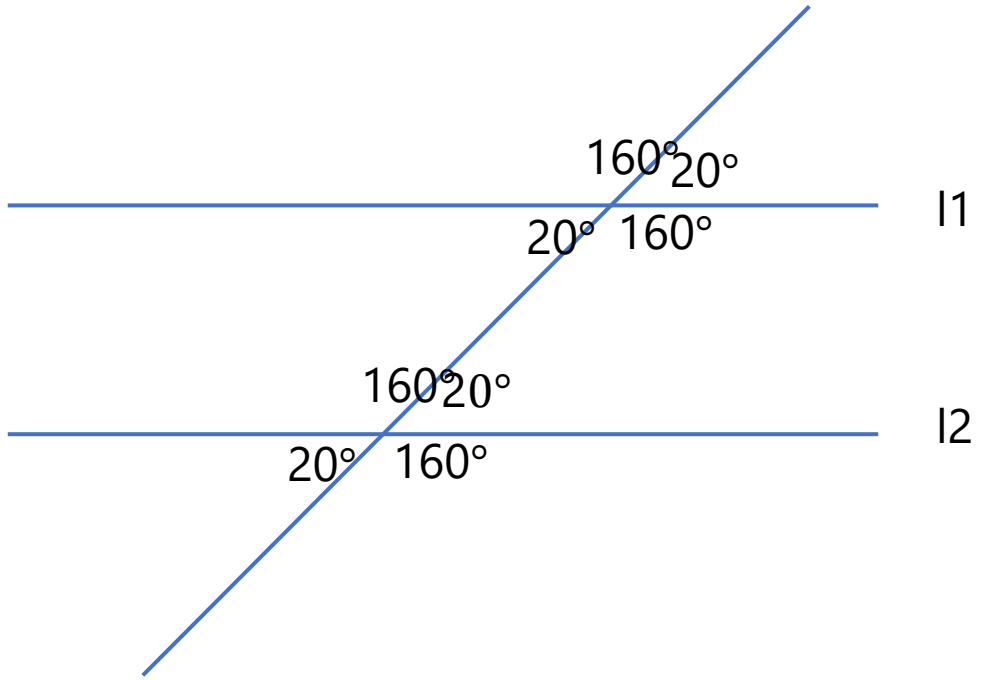
Two lines that are in the same plane do not intersect, the two lines are parallel

Parallel symbol: $l_1 \| l_2$



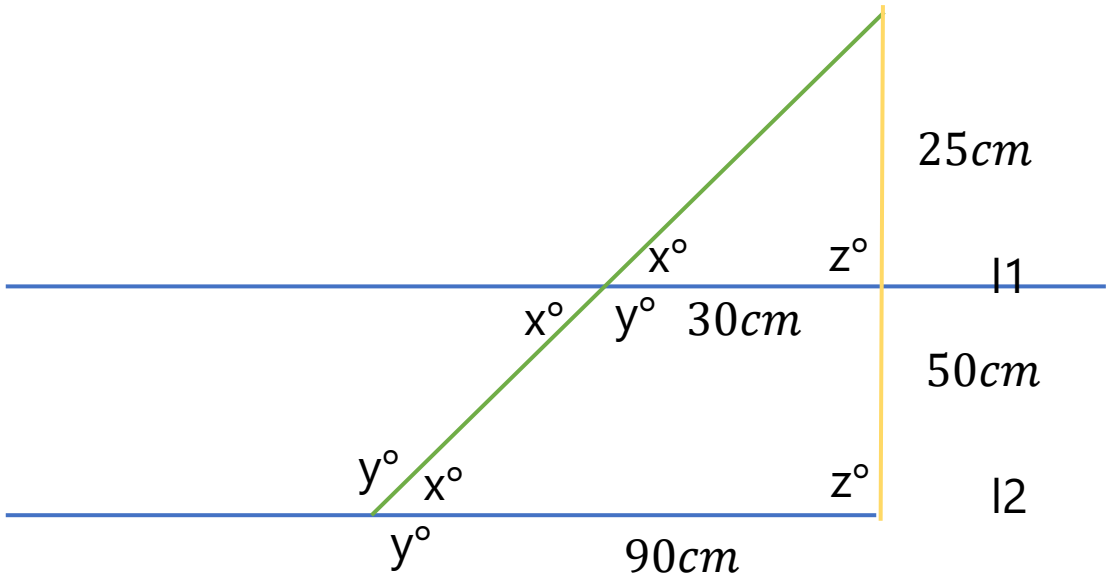
Copyright by PL Consulting

Parallel lines (2)



Copyright by PL Consulting

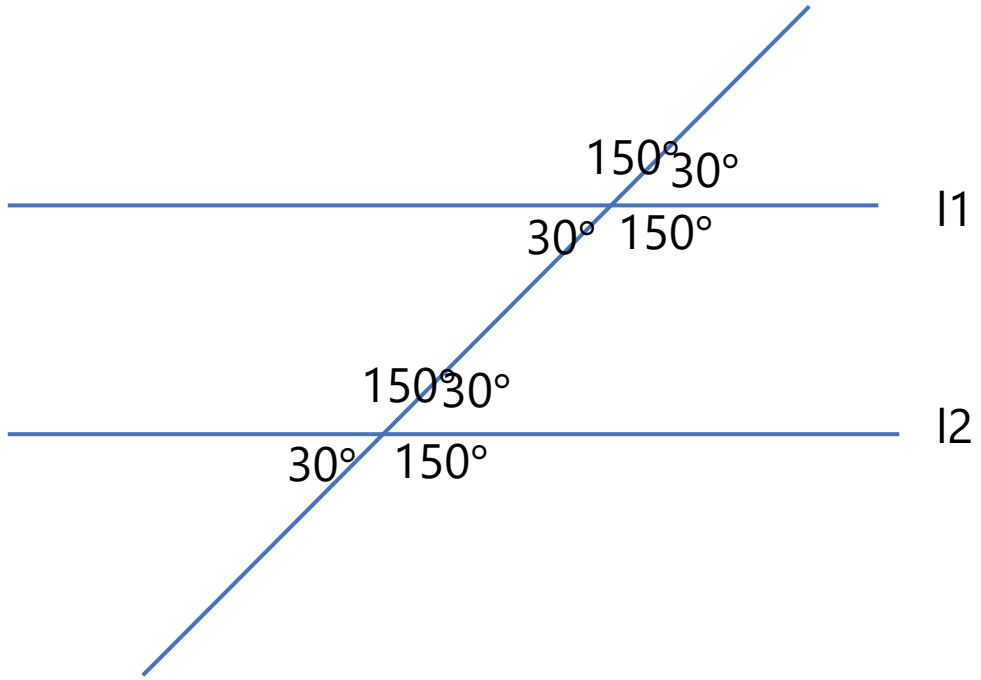
Parallel lines (2)



Copyright by PL Consulting

Parallel lines (2)

Angle in a circle = 360°
Angle of one side of a line = 180°



Copyright by PL Consulting