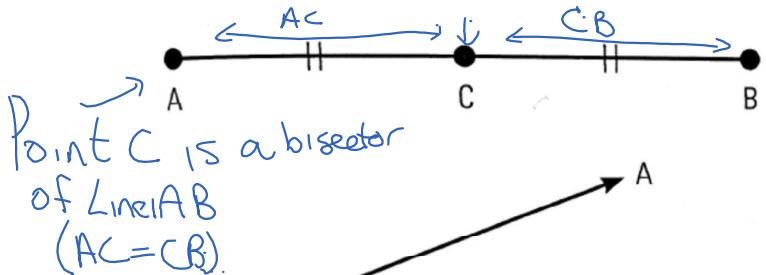
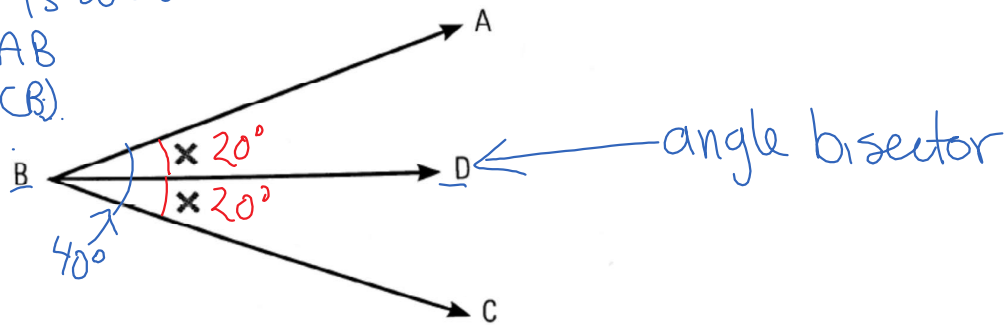


5.2 – Angle Bisectors and Perpendicular Lines

Angle bisector: a segment, ray, or line that separates two halves of a bisected angle.



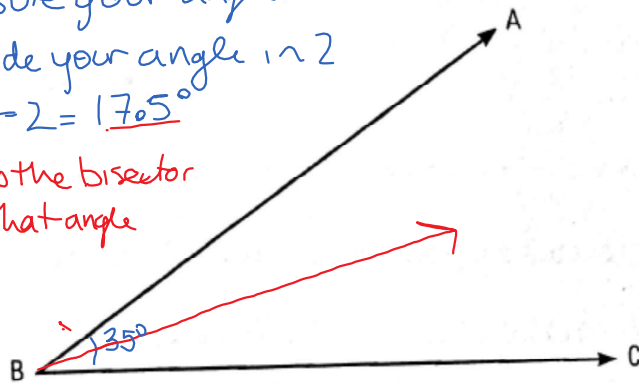
[Ex] Ray BD is an angle bisector of $\angle ABC$



Example 1:

Bisect $\angle ABC$ using a straight edge and compass.

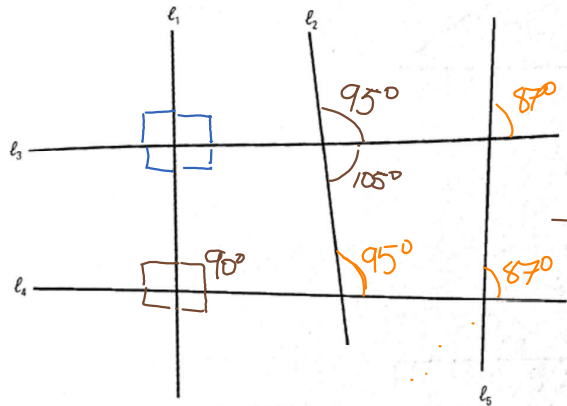
- 1 → measure your angle
- 2 → divide your angle in 2
 $35^\circ \div 2 = 17.5^\circ$
- 3 → Draw the bisector at that angle



**Complete Build Your Skills #1-4 on pages 226-227.

Example 2:

Using a protractor, determine which of the following lines are perpendicular.



When 2 lines cross at 90° angles

$\rightarrow l_3 \perp l_1$ are perpendicular

$\rightarrow l_4 \perp l_5$ are perpendicular.

**Complete Build Your Skills #5-7 on page 228.

**Complete Practise Your New Skills #1-5 on pages 229-230.

5.3 – Non-Parallel Lines and Transversals.

Transversal: a line that intersects two or more lines.

Corresponding angles: two angles that occupy the same relative position at two different intersections

Vertically opposite angles: angles created by intersecting lines that share only a vertex

Alternate interior angles: angles in opposite positions between two lines intersected by a transversal and also on alternate sides of the same transversal

Alternate exterior angles: angles in opposite positions outside two lines intersected by a transversal

