

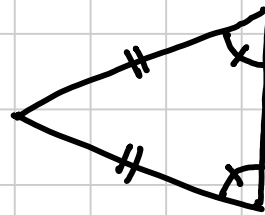
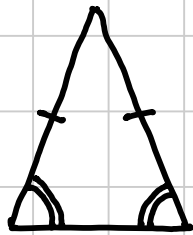
TRIANGLES AND PARALLEL LINES

Note Title

12/03/2010

- The angles in any triangle add up to 180°
- A triangle with 3 sides of different lengths is called a SCALED triangle
- A triangle with 2 sides of the same length is called an ISOSCELES triangle.

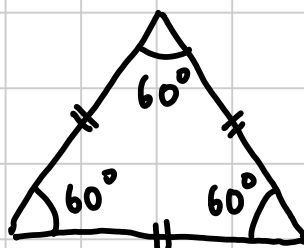
It also has 2 equal angles.



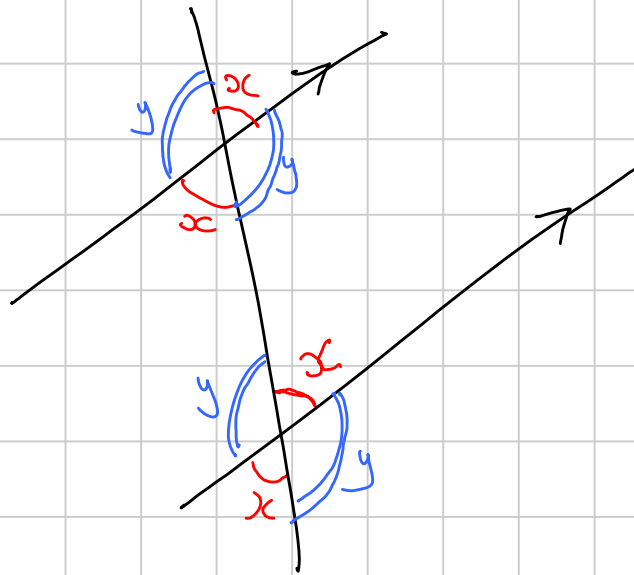
(We put the same marking on sides or angles to show they are equal)

- A triangle with all 3 sides of the same length is called an EQUILATERAL triangle.

Because all 3 angles are equal, each one is $180 \div 3 = 60^\circ$



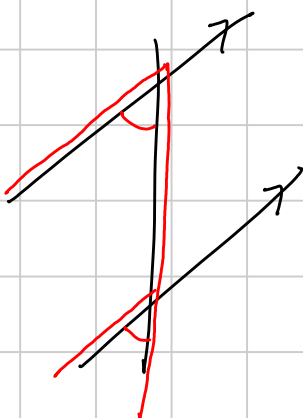
Parallel lines



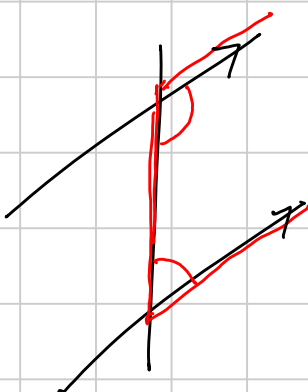
$$x + y = 180^\circ$$



ALTERNATE angles are equal
(Z-shape or N-shape)

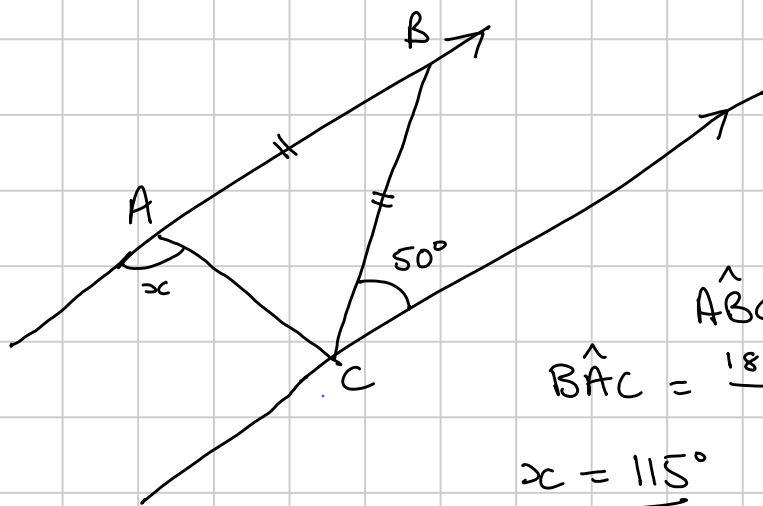


CORRESPONDING angles are equal
(F-shape)



INTERIOR angles add up to 180°
(C-angles or U-angles)

Example



Find angle x

$$\hat{A}BC = 50^\circ \text{ (alternate angles)}$$

$$\hat{B}AC = \frac{180 - 50}{2} = 65^\circ \text{ (isosceles triangle)}$$

$$\underline{\underline{x = 115^\circ}} \text{ (angles on a straight line)}$$