Lines & Angles

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Types of Angles

(vii) Zero ∠ :- $\theta = 0^\circ$

(vi) Complete ∠ :- $\theta = 360^\circ$

(v) Reflex ∠ : - $180^\circ < \theta < 360^\circ$

(iv) Straight ∠ : - $\theta = 180^\circ$

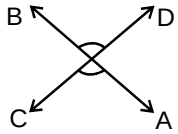
(iii) Obtuse ∠ : - $90^\circ < \theta < 180^\circ$

(ii) Acute ∠ : - $0 < \theta < 90^\circ$

(i) Right ∠ : - $\theta = 90^\circ$

Pair of ∠'s (θ_1 & θ_2)

(vi) Vertically opp. angles :-



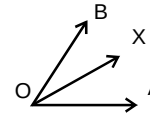
∠AOC = ∠BOD

∠AOD = ∠BOC

(v) Linear Pair :- $\theta_1 + \theta_2 = 180^\circ$ (θ_1 & θ_2 are adjacent)

(iv) Adjacent angles :-
(a) they have the same vertex,
(b) they have a common arm,
(c) non common arms are on either side of the common arm.

(iii) Angle Bisector :-



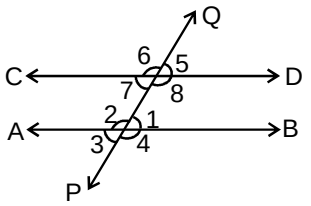
∠AOX = ∠BOX

(ii) Supplementary angles :- $\theta_1 + \theta_2 = 180^\circ$

(i) Complementary angles :- $\theta_1 + \theta_2 = 90^\circ$

Types of Triangles

Angles made by Transveral



(i) Corresponding angles
(∠1 & ∠5, ∠2 & ∠6 , ∠3 & ∠7, ∠4 & ∠8)

(ii) Alternate interior angles
(∠1 & ∠7, ∠2 & ∠8)

(iii) Co-interior angles
(∠1 + ∠8 = 180°= ∠2 + ∠7)

(iv) Alternate exterior angle
(∠4 & ∠6, ∠3 &∠5)

Basis of Sides

(i) Scalene (all sides diff.)

(ii) Isoceles (2 sides equal)

(iii) Equilateral (all sides equal)

Basis of angles

(i) Right ($\theta = 90^\circ$)

(ii) Acute ($0 < \theta < 90^\circ$)

(iii) Obtuse ($90^\circ < \theta < 180^\circ$)

Properties

(i) Sum of interior angles of $\Delta = 180^\circ$

(ii) $\angle BOC = 90 + \frac{1}{2}\angle A$

(iii) Ext. ∠ = Sum of 2 interior opp. ∠'s.

(iii) $\angle BOC = 90 - \frac{1}{2}\angle A$