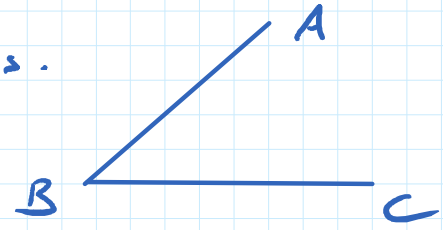
Point - named with Capital letters

A . . B

Distance between A and B is |AB|

Angles.



$\angle ABC$ = angle ABC

$|\angle ABC|$ = measure of angle ABC.

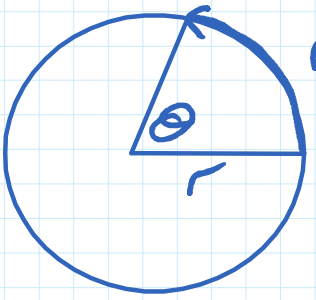
Units of Measure

Degrees = 1 circle = 360°

$1^\circ = 60'$ 1 degree = 60 minutes

Radians = 1 circle = 2π

Every time the radius fits into the circumference we have travelled one radian.



θ = 1 radian

Angle formed at centre = subtended.

No of rads $= \frac{2\pi r}{r} = 2\pi$

$2\pi = 360^\circ$

$\pi = 180^\circ$

π radians $= 180^\circ$

3.14 radians $= 180^\circ$

1 radians $= \frac{180}{3.14} = 57^\circ$

Convert

(i) 60° to radians

$180^\circ = \pi$

$1^\circ = \frac{\pi}{180}$

$60^\circ = \frac{60\pi}{180} = \frac{\pi}{3}$

(II) 135° to rads

$180 = \pi$

$1^\circ = \frac{\pi}{180}$

$135^\circ = \frac{135\pi}{180} = \frac{3\pi}{4}$

(III) $\frac{\pi}{4}$ to degrees

$\frac{180}{4} = 45^\circ$

(IV) 2.5 rads to degrees.

$\pi = 180^\circ$

$1 \text{ rad} = \frac{180}{\pi}$

$2.5 \text{ rads} = \frac{180}{\pi} \times 2.5$

$= \frac{180}{3.14} \times 2.5$

Tables $1 \text{ rad} = 57^\circ$

Words.

Axiom = statement true no proof required ⇒ straight line = 180°

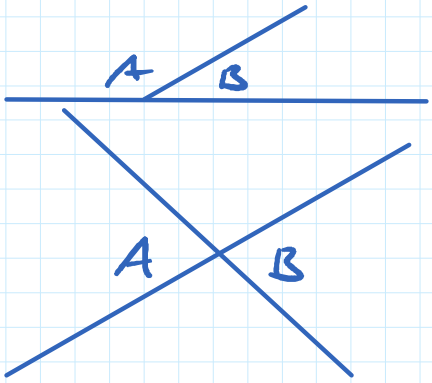
Theorem = statement true with

proof = angles of a triangle sum to 180°.

Converse = Opposite statement is true. Isosceles triangle.

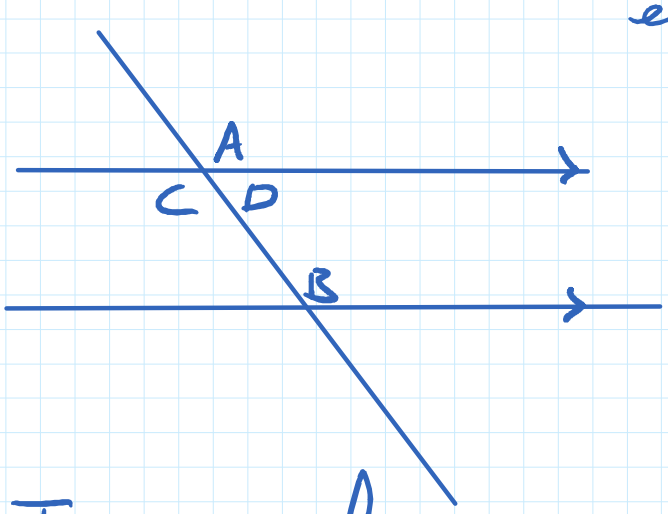
Corollary = statement true from a theorem. Circles.

Basic Information (3)



A + B = 180°
straight line

A = B = vertically opposite angles are equal.



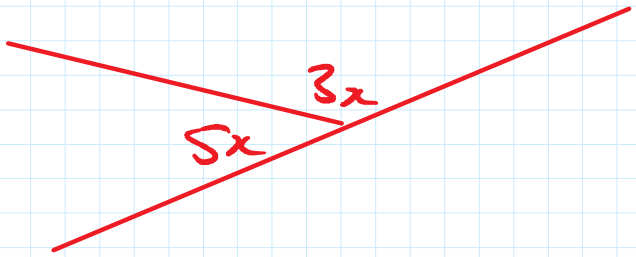
Transversal.

A = B = correspond

A = C = vertically opposite

B = C = alternate

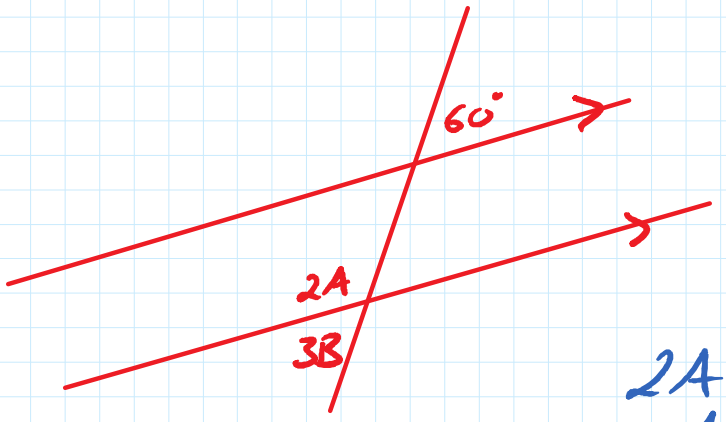
B + D = 180° = interior.



Find x.

$8x = 180$

$x = 22.5°$



Find A and B

$2A = 120$

$A = 60$

$3B = 60$

$B = 20°$