



# Sadiq Public School

Do the right, fear no man

Mathematics

P-7

Saturday, 16<sup>th</sup> Nov 24

**Topic:** Angles on a straight line and Vertical angles

Ex. 10A, Q. 13 (page 173)

**Previous Work:**

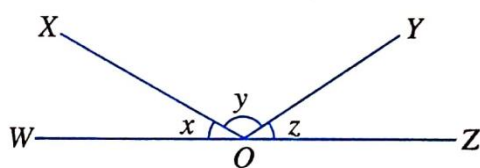
Angles on a straight line and Vertical angles

Ex. 10A, Q. 12 (c, d) (page 172, 173)

**Information:**

In our today's Lecture, both concepts will be used. i.e Vertical angles and angles on a straight line.

**Explanation:** Straight line angle



$$x + y + z = 180$$

**Working (C.W):**

Q. 13. Find  $x$ ,  $y$ , obtuse AOD and reflex COE.

**Sol:** As AB and CD intersect at O, so AOD and COB are Vertical angles.

$$6x = 34 + (186 - 4x)$$

$$6x = 34 + 186 - 4x$$

$$6x + 4x = 34 + 186$$

$$10x = 220$$

$$x = 22$$

Also CD is also a straight line, so

$$6x + 3y = 180$$

$$6(22) + 3y = 180$$

$$132 + 3y = 180$$

$$3y = 180 - 132$$

$$3y = 48$$

$$y = 16$$

Obtuse angle AOD =  $34 + (186 - 4x)$

$$= 34 + 186 - 4(22)$$

$$= 34 + 186 - 88$$

$$\text{AOD} = 132$$

Reflex angle COE =  $6x + 3y + (186 - 4x)$

$$= 6(22) + 3(16) + 186 - 4(22)$$

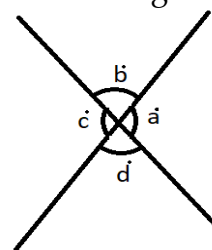
$$= 132 + 48 + 186 - 88$$

$$\text{COE} = 278$$

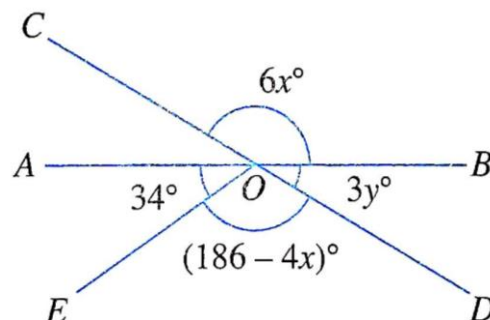
because  $x=22$

because  $x=22, y=16$

Vertical angles



$$a^\circ = c^\circ, \quad b^\circ = d^\circ$$

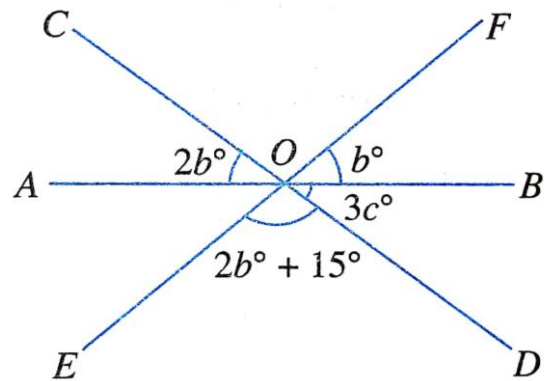


Practice:

Q. 1. (a ,b), Page # 182

Home Work:

Given that AB, CD and EF are straight lines.  
Find the values of a, b and c. Also find  
Obtuse angle EOB.



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