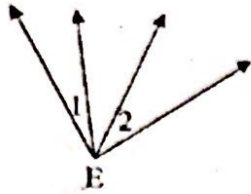


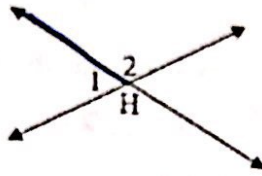
Day 3 - Special Pairs of Angles Notes

Adjacent Angles

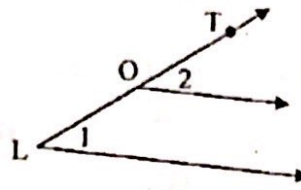
In the diagrams below, $\angle 1$ and $\angle 2$ are ...



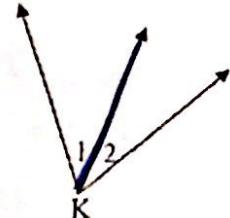
Not Adjacent Angles



Adjacent Angles



Not Adjacent Angles

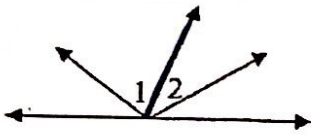


Adjacent Angles

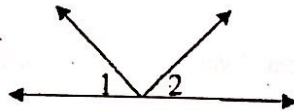
What can you conclude about Adjacent Angles?

- next to each other \rightarrow share a side

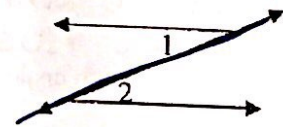
Determine whether $\angle 1$ and $\angle 2$ are adjacent angles.



yes
Shares a side



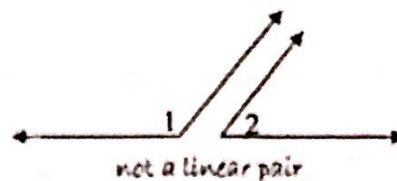
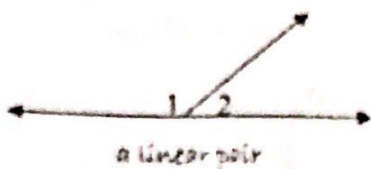
no
doesn't share a side



yes
Shares a side

Linear Pair

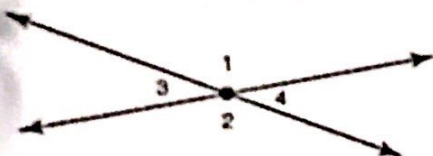
In the diagrams below, $\angle 1$ and $\angle 2$ are ...



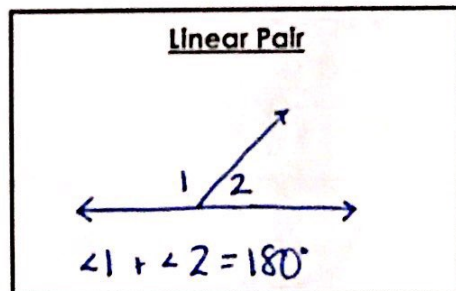
What can you conclude about a Linear Pair?
 They add to 180° (form a line)
 They share a side

Linear Pair: Two adjacent (next to) angles whose noncommon sides are opposite rays. A linear pair also forms a line (supplementary).

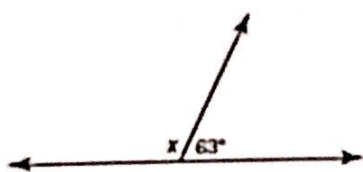
a. Name all the linear pairs in the diagram below:



- $\angle 1 \text{ \& } \angle 4$
- $\angle 4 \text{ \& } \angle 2$
- $\angle 2 \text{ \& } \angle 3$
- $\angle 3 \text{ \& } \angle 1$



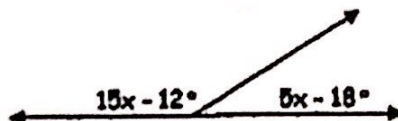
b. Solve for x.



$$x + 63 = 180$$

$$\boxed{x = 117^\circ}$$

c. Solve for x:



$$\underline{15x - 12} + \underline{5x - 18} = 180$$

$$20x - 30 = 180$$

$$+ 30 \quad + 30$$

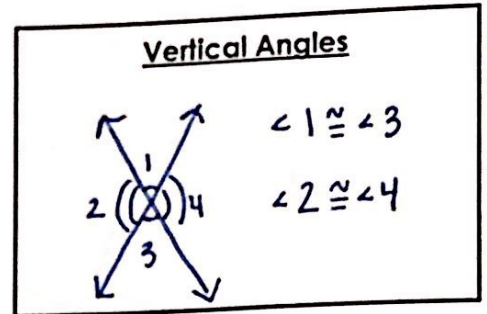
$$\underline{20x = 210}$$

$$\underline{20} \quad \underline{20}$$

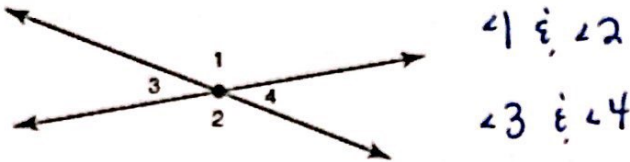
$$\boxed{x = 10.5}$$

Vertical Angles

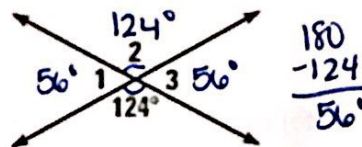
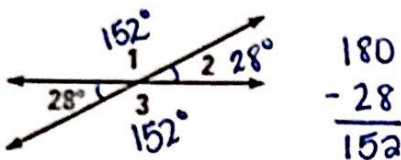
Vertical Angles: Two nonadjacent angles that are formed by two intersecting lines. Vertical angles are congruent.



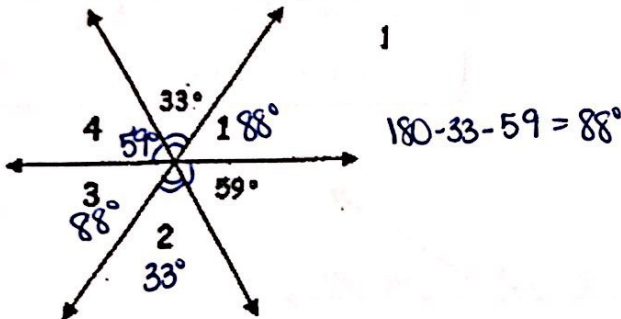
a. Name all the vertical angles in the diagram below:



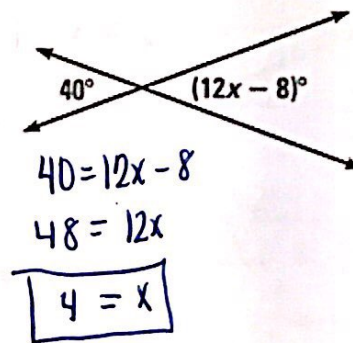
b. Find the measures of angles 1, 2, and 3.



c. Find the measure of angles 1, 2, 3, and 4.



d. Solve for x.



e. Solve for x. Then determine the measure of angle 1.

