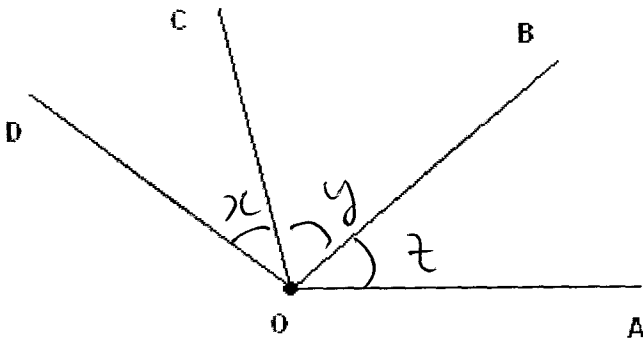


Geometry Worksheet: Angle (1)

1. In the figure below, the following angles have the measures:

$\angle DOB = 104^\circ$, $\angle COA = 118^\circ$ and $\angle DOA = 150^\circ$

Find the measures of the following angles: $\angle DOC$, $\angle COB$ and $\angle BOA$.



let x , y and z be the measures of angles $\angle DOC$, $\angle COB$ and $\angle BOA$ respectively.

$$\angle DOB = 104^\circ \Rightarrow x + y = 104^\circ \quad (1)$$

$$\angle COA = 118^\circ \Rightarrow y + z = 118^\circ \quad (2)$$

$$\angle DOA = 150^\circ \Rightarrow x + y + z = 150^\circ \quad (3)$$

Substitute $x + y$ by 104° in eq. (3).

$$104^\circ + z = 150^\circ \Rightarrow \underline{z = 46^\circ}$$

Use eq. (2) to

find $y = 118^\circ - z = \underline{72^\circ}$

then use (1) to find $x = 104^\circ - y = \underline{32^\circ}$