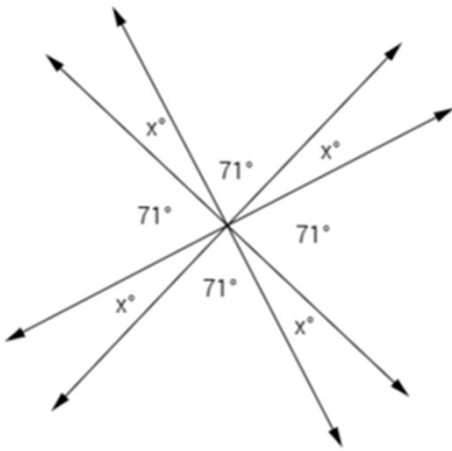
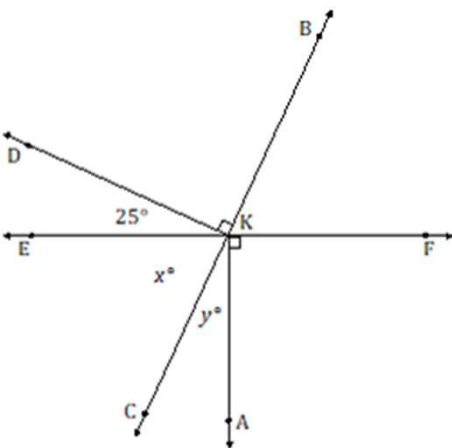


Angle Word Problems Worksheets

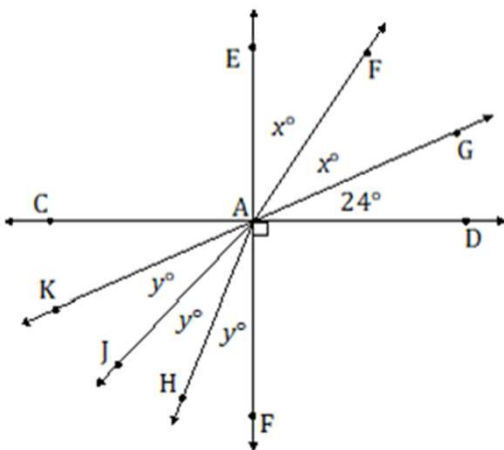
1. Find the measure of x .



2. Find the measures of x and y .

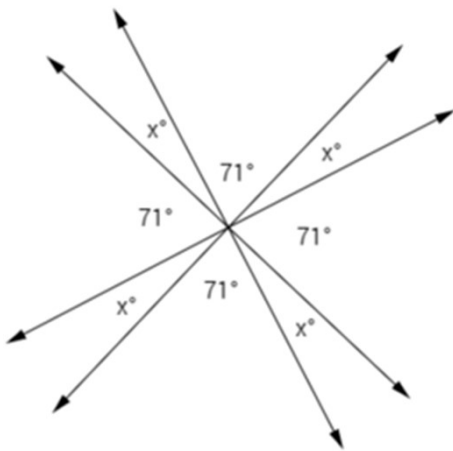


3. Find the measures of x and y .



Angle Word Problems Worksheets

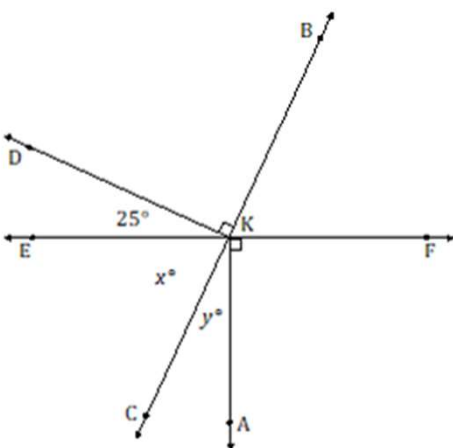
1. Find the measure of x .



All of the angles in the diagram are angles at a point and their measures sum to 360° .

$$\begin{aligned}
 4(x + 71) &= 360 \\
 4x + 284 &= 360 \\
 4x + 284 - 284 &= 360 - 284 \\
 4x &= 76 \\
 \left(\frac{1}{4}\right)4x &= \left(\frac{1}{4}\right)76 \\
 x &= 19
 \end{aligned}$$

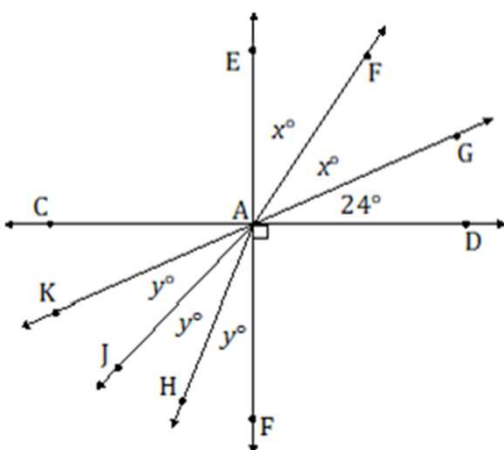
2. Find the measures of x and y .



$\angle CKE$, $\angle EKD$, and $\angle DKB$ are angles on a line and their measures sum to 180° .

$$\begin{aligned}
 x + 25 + 90 &= 180 & (65) + y &= 90 \\
 x + 115 &= 180 & 65 - 65 + y &= 90 - 65 \\
 x + 115 - 115 &= 180 - 115 & y &= 25 \\
 x &= 65
 \end{aligned}$$

3. Find the measures of x and y .



$\angle EAG$ and $\angle FAK$ are vertical angles and are of equal measurement. $\angle EAG$ and $\angle GAD$ form a right angle and their measures have a sum of 90° .

$$\begin{aligned}
 2x + 24 &= 90 & 3y &= 66 \\
 2x + 24 - 24 &= 90 - 24 & \left(\frac{1}{3}\right)3y &= \left(\frac{1}{3}\right)66 \\
 2x &= 66 & y &= 22 \\
 \left(\frac{1}{2}\right)2x &= \left(\frac{1}{2}\right)66 \\
 x &= 33
 \end{aligned}$$