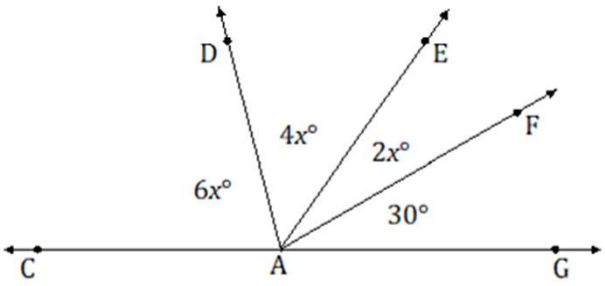
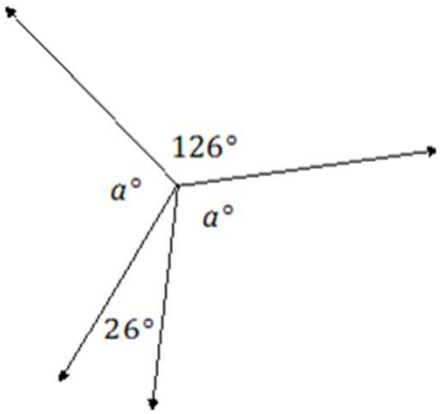
Angle Word Problems Worksheets

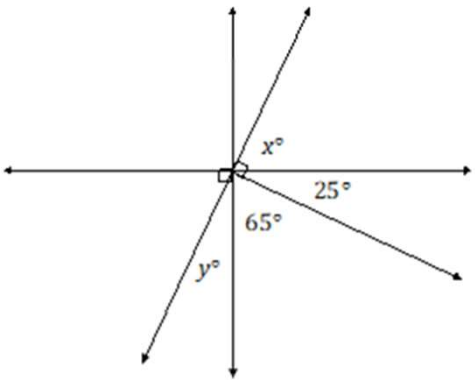
1. Find the measures of $\angle EAF$, $\angle DAE$, and $\angle CAD$



2. Find the measure of a.



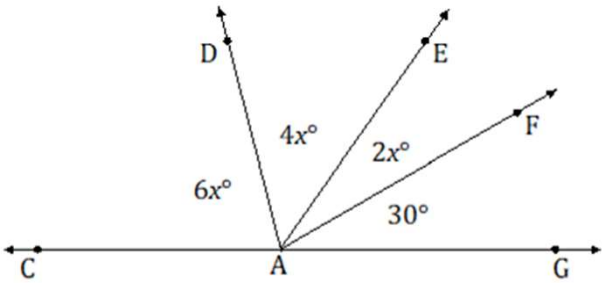
3. Find the measures of x and y.



Angle Word Problems Worksheets

1. Find the measures of $\angle EAF$, $\angle DAE$, and $\angle CAD$

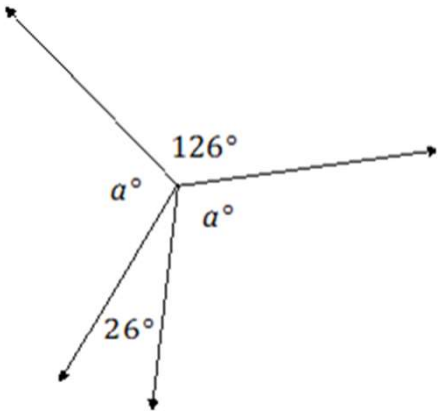
$\angle GAF, \angle EAF$, $\angle DAE$, and $\angle CAD$ are angles on a line and their measures have a sum of $180°$.



$$6x + 4x + 2x + 30 = 180$$
$$12x + 30 = 180$$
$$12x + 30 - 30 = 180 - 30$$
$$12x = 150$$
$$x = 12.5$$

$$m\angle EAF = 2(12.5°) = 25°$$
$$m\angle DAE = 4(12.5°) = 50°$$
$$m\angle CAD = 6(12.5°) = 75°$$

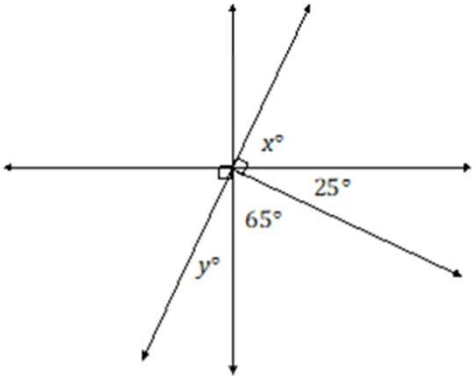
2. Find the measure of a.



Angles $a°$, $26°$, $a°$, and $126°$ are angles at a point and have a sum of $360°$.

$$a + 126 + a + 26 = 360$$
$$2a + 152 = 360$$
$$2a + 152 - 152 = 360 - 152$$
$$2a = 208$$
$$\left(\frac{1}{2}\right)2a = \left(\frac{1}{2}\right)208$$
$$a = 104$$

3. Find the measures of x and y.



Angles $y°$ and $65°$ and angles $25°$ and $x°$ have a sum of $90°$.

$$x + 25 = 90$$
$$x + 25 - 25 = 90 - 25$$
$$x = 65$$

$$65 + y = 90$$
$$65 + y = 90$$
$$65 - 65 + y = 90 - 65$$
$$y = 25$$