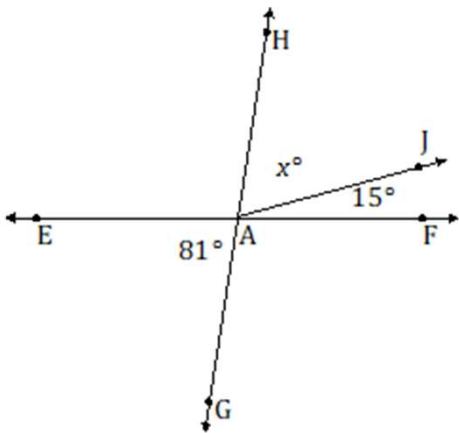
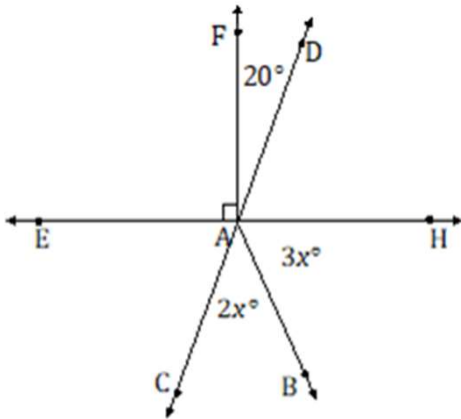


## Angle Word Problems Worksheets

1. Find the measure of  $\angle HAJ$



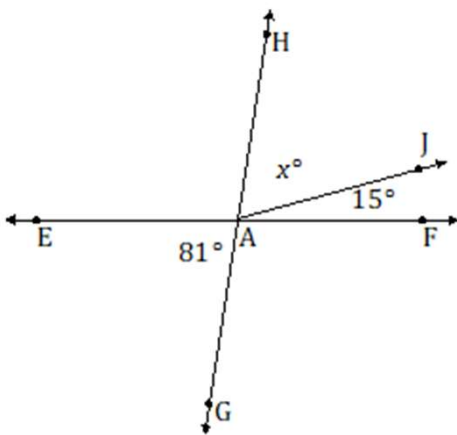
2. Find the measures of  $\angle HAB$  and  $\angle CAB$



3. The measures of three angles at a point are in the ratio of 2 : 3 : 5. Find the measures of the angles.

## Angle Word Problems Worksheets

1. Find the measure of  $\angle HAJ$

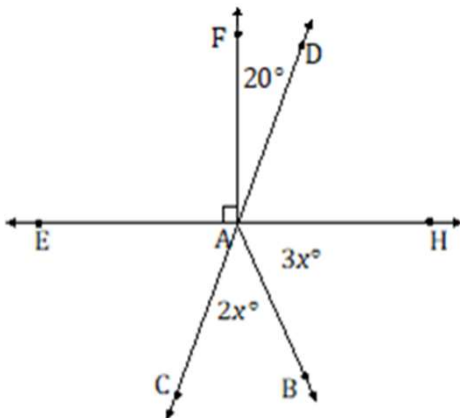


Adjacent angles  $x^\circ$  and  $15^\circ$  together are vertically opposite from and are equal to angle  $81^\circ$ .

$$\begin{aligned}x + 15 &= 81 \\x + 15 - 15 &= 81 - 15 \\x &= 66\end{aligned}$$

$$m\angle HAJ = 66^\circ$$

2. Find the measures of  $\angle HAB$  and  $\angle CAB$



The measures of adjacent angles  $\angle CAB$  and  $\angle HAB$  have a sum of the measure of  $\angle CAH$ , which is vertically opposite from and equal to the measurement of  $\angle DAE$

$$\begin{aligned}2x + 3x + 70 &= 180 \\5x &= 110 \\ \left(\frac{1}{5}\right) 5x &= \left(\frac{1}{5}\right) 110 \\x &= 22\end{aligned}$$

$$m\angle HAB = 3(22^\circ) = 66^\circ$$

$$m\angle CAB = 2(22^\circ) = 44^\circ$$

3. The measures of three angles at a point are in the ratio of 2 : 3 : 5. Find the measures of the angles.

$$\angle A = 2x, \angle B = 3x, \angle C = 5x$$

$$2x + 3x + 5x = 360$$

$$10x = 360$$

$$\left(\frac{1}{10}\right) 10x = \left(\frac{1}{10}\right) 360$$

$$x = 36$$

$$\angle A = 2(36^\circ) = 72^\circ$$

$$\angle B = 3(36^\circ) = 108^\circ$$

$$\angle C = 5(36^\circ) = 180^\circ$$