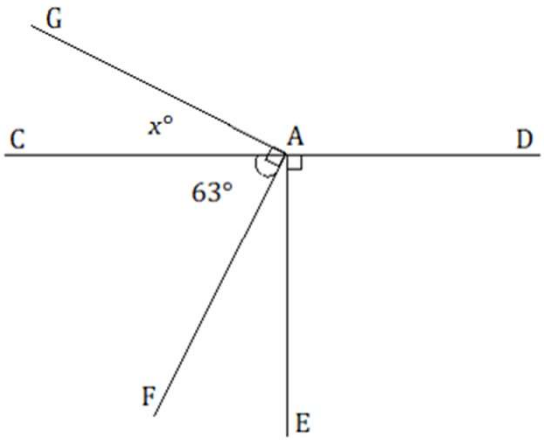
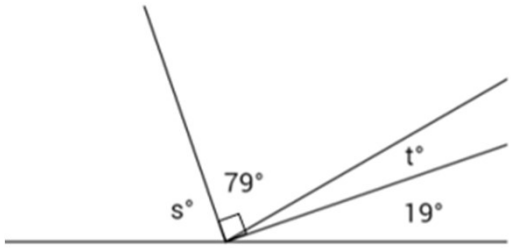
Angle Problems Worksheets
(Lines meeting at a Point)

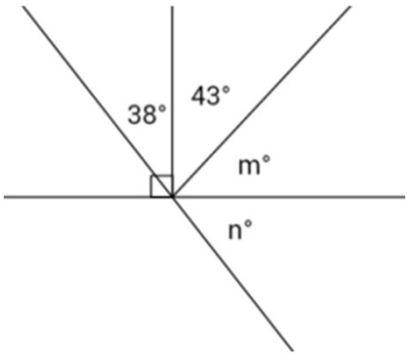
1. Set up and solve an equation for the value of x. Use the value of x and a relevant angle relationship in the diagram to determine the measurement of $\angle EAF$.



2. Set up and solve the appropriate equations for s and t.



3. Two lines meet at a point that is also the endpoint of two rays. Set up and solve the appropriate equations for m and n.



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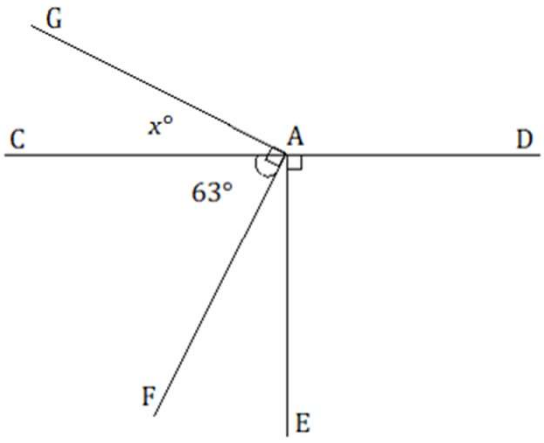
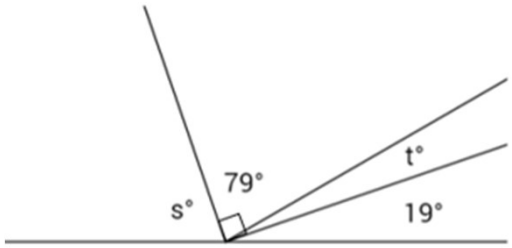


$$x + 63 = 90$$
$$x + 63 - 63 = 90 - 63$$
$$x = 27$$

$\angle CAG$ and $\angle EAF$ are the complements of $63°$. The measurement of $\angle CAG$ is $27°$; therefore, the measurement of $\angle EAF$ is also $27°$.

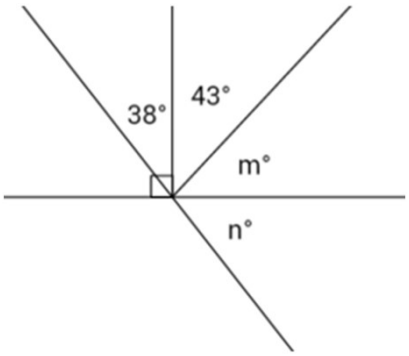
2. Set up and solve the appropriate equations for s and t.



$$79 + \boldsymbol{t} = 90$$
$$79 - 79 + \boldsymbol{t} = 90 - 79$$
$$\boldsymbol{t} = 11$$

$$9 + (11) + 79 + \boldsymbol{s} = 180$$
$$109 + \boldsymbol{s} = 180$$
$$109 - 109 + \boldsymbol{s} = 180 - 109$$
$$\boldsymbol{s} = 71$$

3. Two lines meet at a point that is also the endpoint of two rays. Set up and solve the appropriate equations for m and n.



$$43 + \boldsymbol{m} = 90$$
$$43 - 43 + \boldsymbol{m} = 90 - 43$$
$$\boldsymbol{m} = 47$$

$$38 + 43 + (47) + \boldsymbol{n} = 180$$
$$128 + \boldsymbol{n} = 180$$
$$128 - 128 + \boldsymbol{n} = 180 - 12$$
$$8\boldsymbol{n} = 52$$