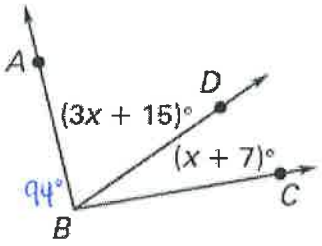
Geometry A
Section 1.4-1.5 Classwork

Name : Key
Date : _____ Period : ____

Section 1.4 Practice Problems

Use the given information to find the indicated angle measure.

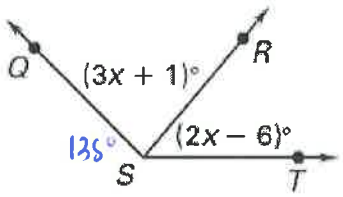
1. Given $m\angle ABC = 94°$, find $m\angle CBD$



$3x+15+x+7=94$
$4x+22=94$
$4x=72$
$x=18$

$m\angle CBD = 18+7$
$m\angle CBD = 25°$

2. Given $m\angle QST = 135°$, find $m\angle QSR$.

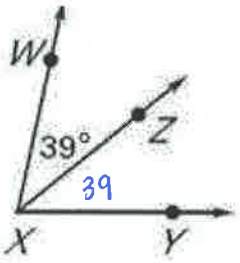


$3x+1+2x-6=135$
$5x-5=135$
$5x=140$
$x=28$

$m\angle QSR = 3(28)+1$
$m\angle QSR = 85°$

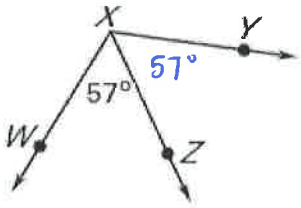
Given that $\overrightarrow{XZ}$ bisects $\angle WXY$, find the two angle measures not given in the diagram.

3.



$m\angle ZXY = 39°$, $m\angle WXY = 78°$

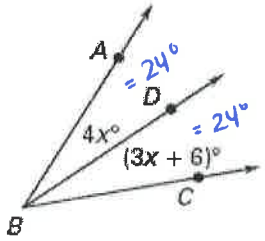
4.



$m\angle ZXY = 57°$, $m\angle WXY = 114°$

In the diagram, $\overrightarrow{BD}$ bisects $\angle ABC$. Find $m\angle ABC$.

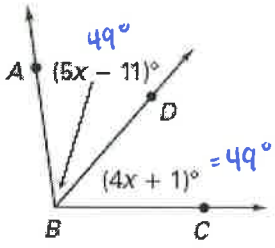
5.



$4x=3x+6$
$x=6$

$m\angle ABC = 24+24$
$m\angle ABC = 48°$

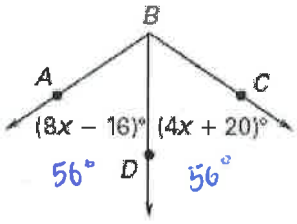
6.



$5x-11=4x+1$
$x-11=1$
$x=12$

$m\angle ABC = 49+49$
$m\angle ABC = 98°$

7.

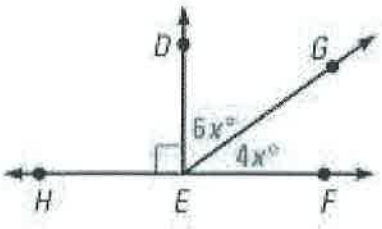


$8x-16=4x+20$
$4x-16=20$
$4x=36$
$x=9$

$m\angle ABC = 56+56$
$m\angle ABC = 112°$

Section 1.5 Practice Problems

8. Find m∠DEG and m∠GEF.



$90+6x+4x=180$

$90+10x=180$

$10x=90$

$x=9$

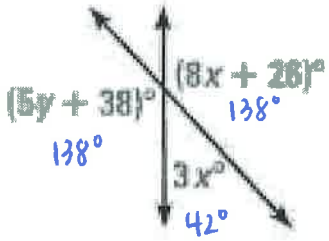
$m\angle DEG = 6(9)$

$\boxed{m\angle DEG = 54^\circ}$

$m\angle GEF = 4(9)$

$\boxed{m\angle GEF = 36^\circ}$

9. Find the values of x and y.



$8x+26+3x=180$

$11x+26=180$

$11x=154$

$\boxed{x=14}$

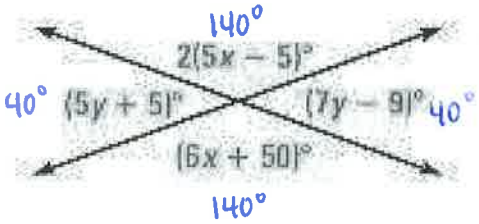
$5y+38+42=180$

$5y+80=180$

$5y=100$

$\boxed{y=20}$

10. Find the measure of each angle in the diagram.



$2(5x-5)=6x+50$

$10x-10=6x+60$

$4x-10=50$

$4x=60$

$x=15$

$5y+5=7y-9$

$5=2y-9$

$14=2y$

$y=7$