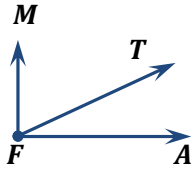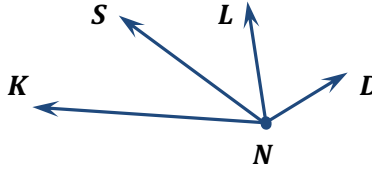Name: _____ Period: _____ Date: _____

Measuring Angles Assignment
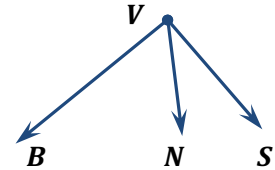
Name the angles in the figure.

1.

2.

3.

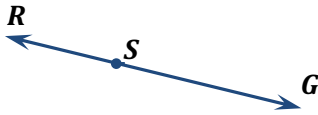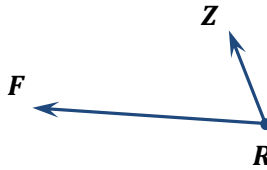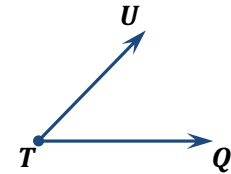**Name the vertex and sides of each angle.**

4.

5.

6.

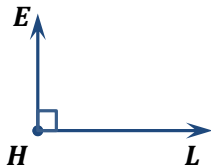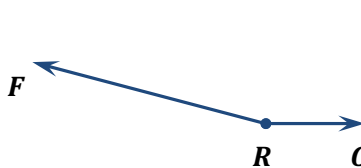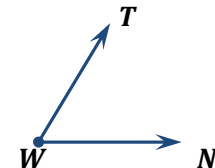**Classify the following angles as acute, right, obtuse, or straight.**

7.

8.

9.

Find the measure of each angle.

10. $m\angle KDP, m\angle KDM, m\angle JDP, m\angle KDJ =?$
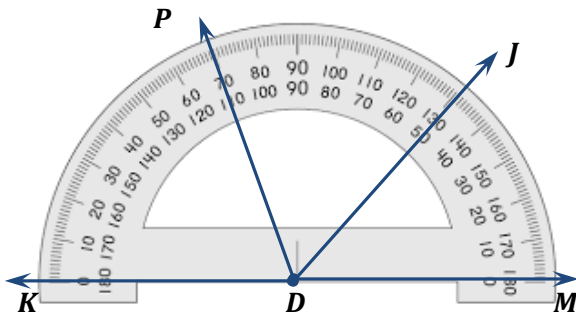
11. $m\angle USE, \ m\angle UST, \ m\angle EST, \ m\angle RST =?$
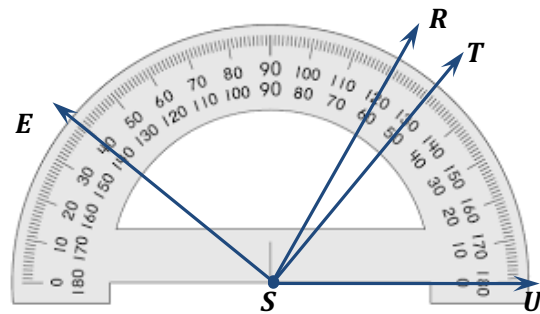
Measuring Angles Assignment

Use a protractor to draw each angle. Then classify each angle.

12. $m\angle SOG = 142$

13. $m\angle IND = 55$

14. $m\angle EFH = 90$

15. $m\angle ZXY = 180$

Find the indicated angle measures.

16. $m\angle JFG = 34$ $m\angle GFQ = 43$
$m\angle JFQ = ?$

17. $m\angle POC = 132$ $m\angle ROC = 52$
$m\angle POR = ?$

Measuring Angles Assignment

Find the value of x and then the indicated angle measures.

16. If $m\angle IFD = 125$, $m\angle IFW = 2x + 15$,
     $m\angle WFD = x - 10$ what are
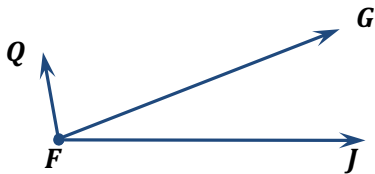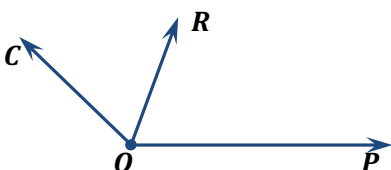 $m\angle IFW$ and $m\angle WFD$?
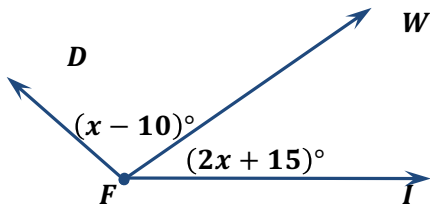
17. If $m\angle PKR = 62$, $m\angle RKS = x - 12$,
     $and\ m\angle PKS = 3x + 10$, what are
     $m\angle RKS$ and $m\angle PKS$?
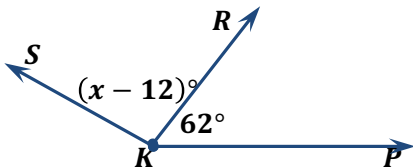
Find the indicated angle measures.

18. If $\overrightarrow{DN}$ bisects $\angle FDS$ and $m\angle FDS = 104$, find
     $m\angle FDN$ and $m\angle NDS$.
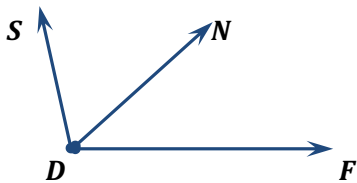
Measuring Angles Assignment
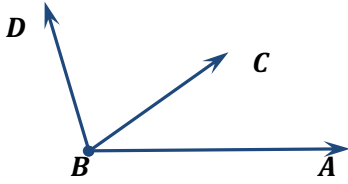
19. If $\overrightarrow{BC}$ bisects $\angle ABD$ and $m\angle ABC = 51$, find
$m\angle ABD$ and $m\angle CBD$.

Find the value of x and then the indicated angle measures.

20. If $\overrightarrow{ON}$ bisects $\angle FOL$ and $m\angle FOL = 4x - 10$,
$m\angle FON = x + 30$, find $m\angle FON$,
$m\angle FOL$ and $m\angle NOL$.

Name: _____ Period: _____ Date: _____

Measuring Angles Assignment

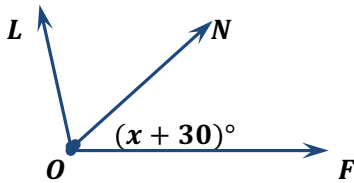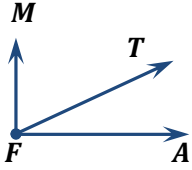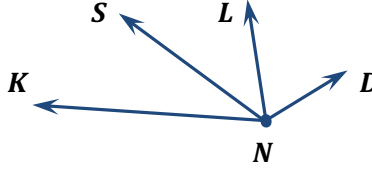**Name the angles in the figure.**

1.

M
T
F   A

∠**AFT**, ∠**AFM** and ∠**TFM**

2.

S   L
K   D
N

∠**KNS**, ∠**KNL**, ∠**KND**,
∠**SNL**, and ∠**LND**

3.

V
B   N   S
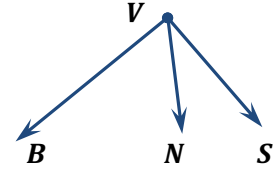
∠**BVN**, ∠**BVS** and ∠**NVS**

Name the vertex and sides of each angle.

4.

R
S
G
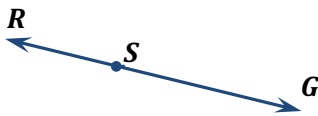
Vertex **S**
Sides $\overrightarrow{SR}$ and $\overrightarrow{SG}$

5.

Z
F
R
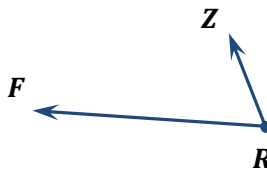
Vertex **R**
Sides $\overrightarrow{RF}$ and $\overrightarrow{RZ}$

6.

U
T   Q
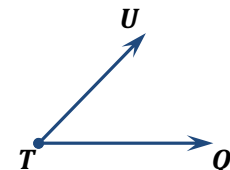
Vertex **T**
Sides $\overrightarrow{TQ}$ and $\overrightarrow{TU}$

Classify the following angles as acute, right, obtuse, or straight.

7.

E
H   L
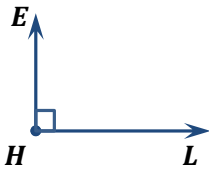
∠**LHE** is right angle

8.

F
R   C
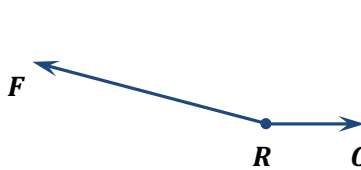
∠**CRF** is obtuse angle

9.

T
W   N
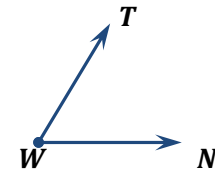
∠**NWT** is acute angle

Find the measure of each angle.

10. $m\angle KDP, m\angle KDM, m\angle JDP, m\angle KDJ$ =?

P
J
K   D   M
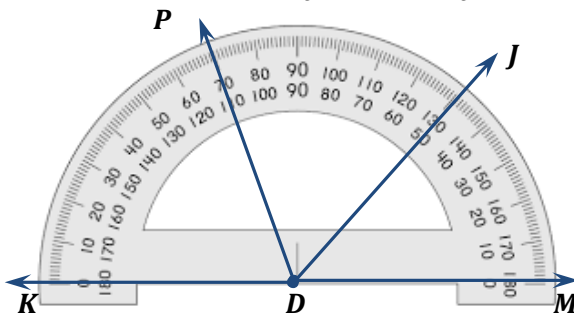
$m\angle KDP =$ **70**
$m\angle KDM =$ **180**
$m\angle JDP = |130 - 70| =$ **60**
$m\angle KDJ =$ **130**

11. $m\angle USE, \; m\angle UST, \; m\angle EST, \; m\angle RST$ =?

R
T
E
S   U
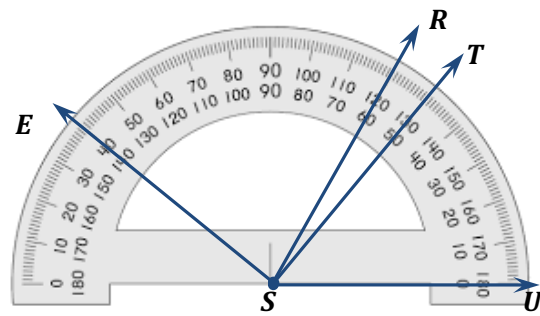
$m\angle USE =$ **140**
$m\angle UST =$ **50**
$m\angle EST = |140 - 50| =$ **90**
$m\angle RST = |130 - 120| =$ **10**

5

Measuring Angles Assignment

Use a protractor to draw each angle. Then classify each angle.

12. $m\angle SOG = 142$

G

O   *S*

Obtuse angle

13. $m\angle IND = 55$

D

I   *N*
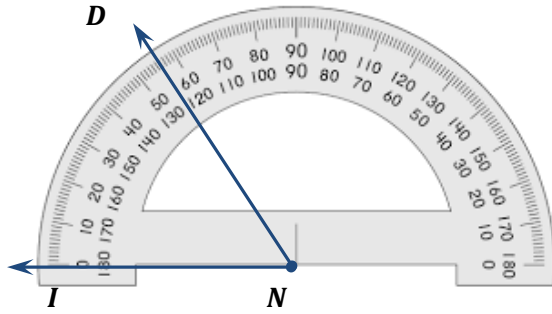
Acute angle

14. $m\angle EFH = 90$

H

F   *E*
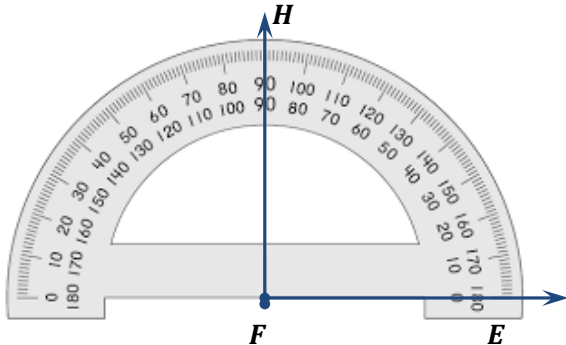
Right angle

15. $m\angle ZXY = 180$

Z   *X*   *Y*
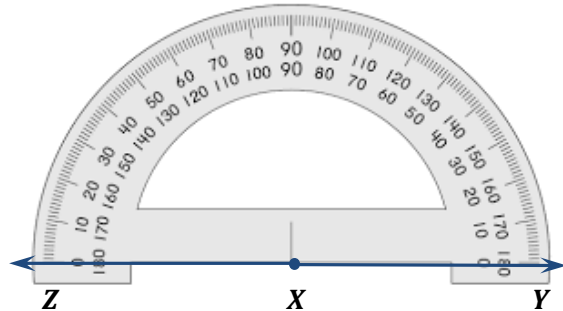
Straight angle

Find the indicated angle measures.

16. $m\angle JFG = 34$ $m\angle GFQ = 43$
$m\angle JFQ =?$

G

Q

F   *J*
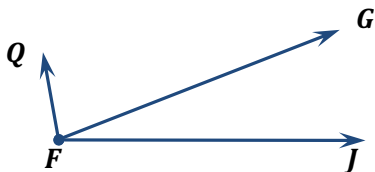
$m\angle JFG = 34$ $m\angle GFQ = 43$
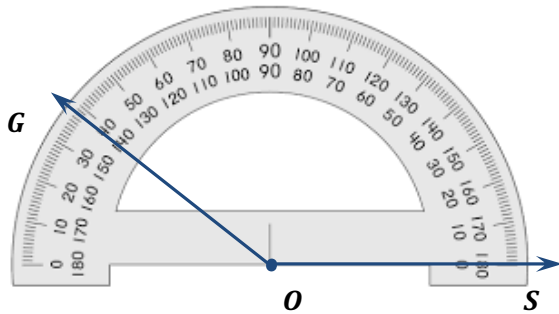$m\angle JFQ =?$

$m\angle JFQ = m\angle JFG + m\angle GFQ$
$m\angle JFQ = 34 + 43$
$m\angle JFQ = $ **77**

17. $m\angle POC = 132$ $m\angle ROC = 52$
$m\angle POR =?$

R

C

O   *P*
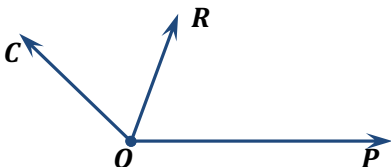
$m\angle POC = 132$ $m\angle ROC = 52$
$m\angle POR =?$

$m\angle POC = m\angle ROC + m\angle POR$
$m\angle POR = m\angle POC - m\angle ROC$
$m\angle POR = 132 - 52$
$m\angle POR = $ **80**

Measuring Angles Assignment

Find the value of x and then the indicated angle measures.

16. If $m\angle IFD = 125$, $m\angle IFW = 2x + 15$, $m\angle WFD = x - 10$ what are $m\angle IFW$ and $m\angle WFD$?

$m\angle IFD = 125$,
$m\angle IFW = 2x + 15$,
$m\angle WFD = x - 10$
$m\angle IFW =?$ $m\angle WFD =?$

$m\angle IFD = m\angle IFW + m\angle WFD$
$125 = 2x + 15 + x - 10$
$125 = 3x + 5$
$125 - 5 = 3x + 5 - 5$
$120 = 3x$
$x = 40$
$m\angle IFW = 2x + 15$ $m\angle WFD = x - 10$
$m\angle IFW = 2 * 40 + 15$ $m\angle WFD = 40 - 10$
$m\angle IFW = 80 + 15$ $m\angle WFD = 30$
$m\angle IFW = 95$ $m\angle WFD = 30$

17. If $m\angle PKR = 62$, $m\angle RKS = x - 12$, and $m\angle PKS = 3x + 10$, what are $m\angle RKS$ and $m\angle PKS$?
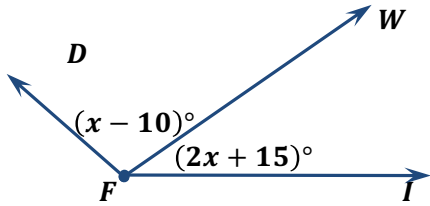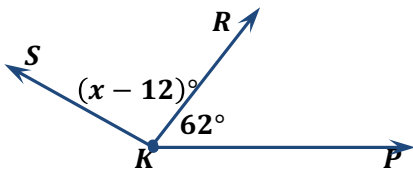
$m\angle PKR = 62$
$m\angle RKS = x - 12$
$m\angle PKS = 3x + 10$
$m\angle RKS =?$ $m\angle PKS =?$

$m\angle PKS = m\angle PKR + m\angle RKS$
$3x + 10 = 62 + x - 12$
$3x + 10 = 50 + x$
$3x + 10 - 10 = 50 + x - 10$
$3x = 40 + x$
$3x - x = 40 + x - x$
$2x = 40$
$x = 20$
$m\angle RKS = x - 12$ $m\angle PKS = 3x + 10$
$m\angle RKS = 20 - 12$ $m\angle PKS = 3 * 20 + 10$
$m\angle RKS = 8$ $m\angle PKS = 60 + 10$
$m\angle RKS = 8$ $m\angle PKS = 70$

Find the indicated angle measures.

18. If $\overrightarrow{DN}$ bisects $\angle FDS$ and $m\angle FDS = 104$, find $m\angle FDN$ and $m\angle NDS$.
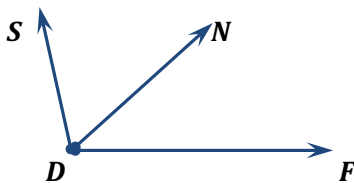
$m\angle FDS = 104$
$m\angle FDN =?$ $m\angle NDS =?$

$m\angle FDS = m\angle FDN + m\angle NDS$
$m\angle FDN = m\angle NDS$
$m\angle FDS = 2 * m\angle NDS$
$m\angle NDS = \dfrac{m\angle FDS}{2}$
$m\angle NDS = \dfrac{104}{2}$
$m\angle NDS = 52$
$m\angle FDN = m\angle NDS$
$m\angle FDN = 52$

Measuring Angles Assignment

19. If $\overrightarrow{BC}$ bisects $\angle ABD$ and $m\angle ABC = 51$, find $m\angle ABD$ and $m\angle CBD$.

$m\angle ABC = 51$
$m\angle CBD =?$ $m\angle ABD =?$

$m\angle CBD = m\angle ABC$
$m\angle CBD = 51$

$m\angle ABD = m\angle ABC + m\angle CBD$
$m\angle ABD = 51 + 51$
$m\angle ABD = 102$

Find the value of x and then the indicated angle measures.

20. If $\overrightarrow{ON}$ bisects $\angle FOL$ and $m\angle FOL = 4x - 10$, $m\angle FON = x + 30$, find $m\angle FON$, $m\angle FOL$ and $m\angle NOL$.

$m\angle FOL = 4x - 10$ $m\angle FON = x + 30$
$m\angle FON =?$ $m\angle FOL =?$ $m\angle NOL =?$

$m\angle FOL = m\angle FON + m\angle NOL$
$m\angle FON = m\angle NOL$
$m\angle FOL = 2 * m\angle FON$
$4x - 10 = 2 * (x + 30)$
$4x - 10 = 2x + 60$
$4x - 10 + 10 = 2x + 60 + 10$
$4x = 2x + 70$
$4x - 2x = 2x - 2x + 70$
$2x = 70$
$x = 35$

$m\angle FON = x + 30$ $m\angle FOL = 4x - 10$
$m\angle FON = 35 + 30$ $m\angle FOL = 4 * 35 - 10$
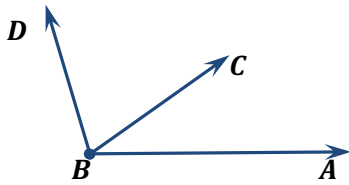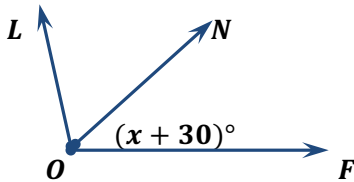$m\angle FON = 65$ $m\angle FOL = 140 - 10$
$m\angle NOL = m\angle FON$ $m\angle FOL = 130$
$m\angle NOL = 65$