A. Vocabulary

Match the vocabulary term with its definition.

___ Point ___ Vertex

___ Polygon ____ Line

___ Angle ___ Adjacent

___ Sides ____ Plane

___ Postulate ___ Distance

___ Collinear ___ Bisector

___ Opposite Rays ___ Theorem

___ Vertical angles ___ Ray

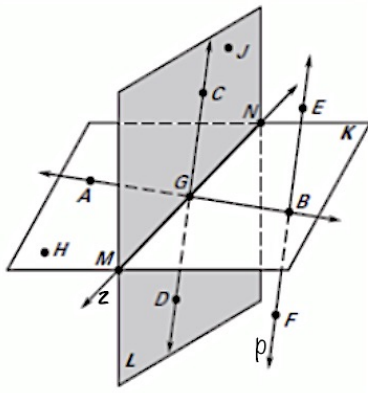
___ Coplanar ___Supplementary

___ Linear Pair ___ Segment

___Complementary

A. A set of points with two rays and a common endpoint.
B. A location with no size or shape. Has no dimension and is notated with a dot.
C. Has one dimension. It is represented with two arrowheads, and extends in both directions with no end.
D. Has two dimensions. It is represented by a shape that looks like a wall or a floor, but extends without end.
E. Points on the same line.
F. Points on the same plane.
G. The common endpoint of an angle.
H. Part of a line. Consists of two endpoints and all the points between.
I. Part of a line. Consists of one endpoint and represented with an arrow in the opposite direction with no end.
J. Two rays that have a common endpoint and form a straight line.
K. A rule accepted without proof. Also, known as an axiom.
L. A rule that can be proven.
M. The absolute value of the difference between two coordinates.
N. A point that divides a segment into two congruent segments
O. A closed plane figure with three or more sides
P. The rays of an angle.
Q. Two angles that add to 90^0
R. Two angles that add to 180^0
S. Two angles that share a common endpoint and a common side.
T. Two adjacent angles that form supplementary angles.
U. Two angles in which the sides form opposite rays.

B. Section 1.1



1. Another name for line z.	2. Three noncoplanar planar points on plane K.	3. A pair of opposite rays on line p.
4. A is collinear with which two other points?	5. Plane K and Plane L intersect at _____?	6. State two segments on plane L.

C. Section 1.1

State a real-world example of each of the following.

1. a point	2. a line	3. a plane

Draw a sketch of each of the following.

4. 3 noncollinear points: R, S, and T in Plane *U*	5. Plane A and Plane B not intersecting.

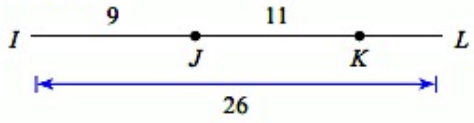
State *sometimes, always,* or *never* for each of the following statements.

6. Two perpendicular lines intersect at exactly one point	7. Two planes that intersect share an infinite amount of points
8. Two planes contain the same point	9. Two planes that intersect share exactly one point.

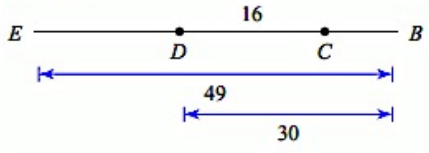
D. 1.2 and 1.3 **Segment Addition Postulate.**

Find the measure of the missing segment.

1. **Find *KL***



2. **Find *EC***



Write and solve an equation to find the length of each segment.

3. B is between A and C. AB = x BC = 2x+1 AC = 19 Find AB and BC .

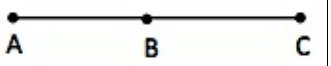
a. **Write an equation to solve for x.**

b. Solve for x.

c. Find AB and BC .

4. AB = 3x - 4, AC = 40, AB = BC

a. **Write an equation to solve for x.**



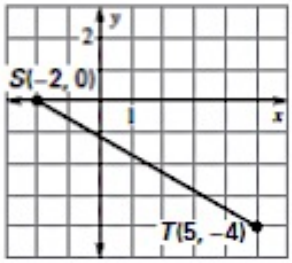
b. Solve for x.

c. Find AB and BC

E. 1.3 and 1.4 Midpoint and Distance

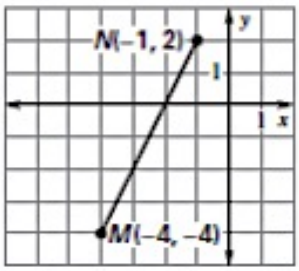
Distance formula: _____ **Midpoint formula: _____**

1. Find the midpoint of $\overline{ST}$ and plot the midpoint, M. on the coordinate plane.



2. If Q is the midpoint of $\overline{QR}$, find the coordinates of R if P(7, -17) and Q(-2, 3).

3. Find the distance of $\overline{MN}$. Write the exact and approximate value to the nearest tenth.



4. Find the perimeter and area of the $\angle GHJ$.

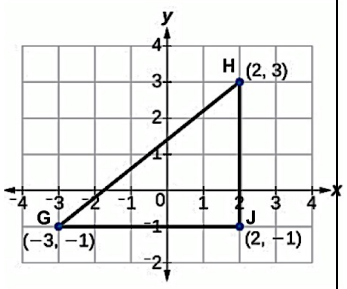
a. GH =

JG =

HJ =

b. Perimeter =

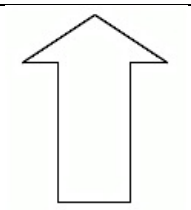
c. Area =



F. 1.4 Polygons

Determine if the polygon is convex or concave. Then, classify the polygon by the number of sides.

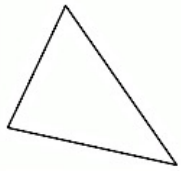
1.



Circle: Convex or Concave

Classify: _____

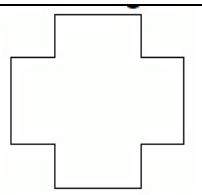
2.



Circle: Convex or Concave

Classify: _____

3.



Circle: Convex or Concave

Classify: _____

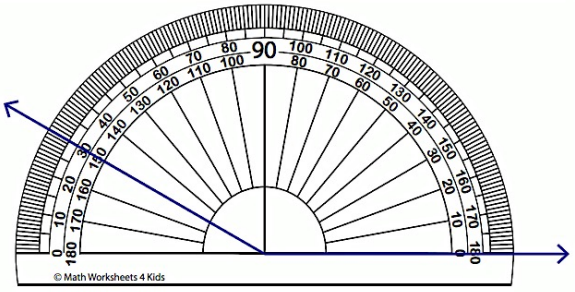
Draw a sketch of each polygon.

4. Convex Octagon	5. Concave nonagon	6. Convex regular quadrilateral.

G. 1.5 Angles

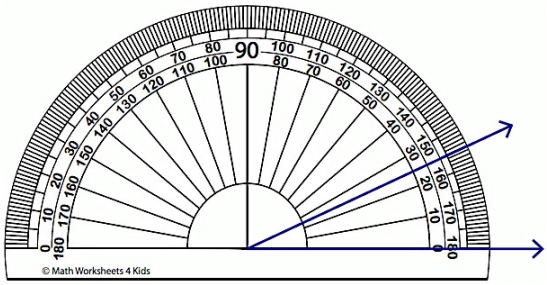
Find and classify each angle.

1.



Angle Measure: _____ Classify: _____

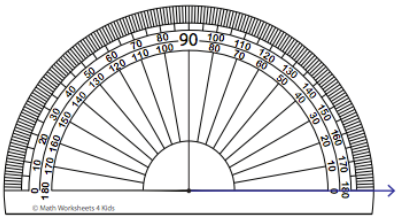
2.



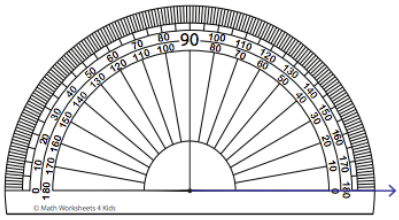
Angle Measure: _____ Classify: _____

Use the given protractor to draw a measure for the given angle.

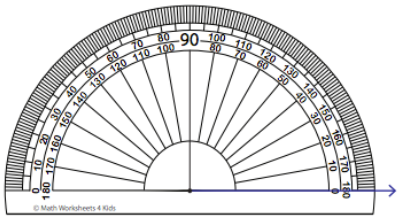
3. Straight angle $\angle XYZ$



4. $m\angle RST = 100°$



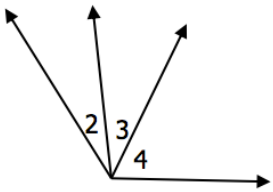
5. Right angle $\angle XYZ$



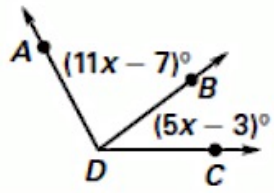
H. 1.5 Angles

Find the measure(s) of the missing angle.

1. $m\angle 4 = 73°$
$m\angle 2 = m\angle 3$;
$m\angle 2 + m\angle 3 = m\angle 4$
Find $m\angle 2$ =



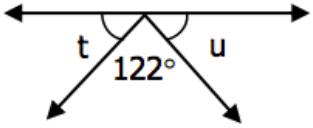
2. Given $m\angle ADC = 118°$
Find the value of x.



$m\angle ADB =$

3. Find $m\angle t$ =

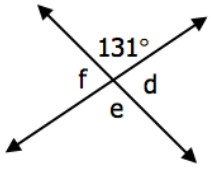
Find $m\angle u$ =



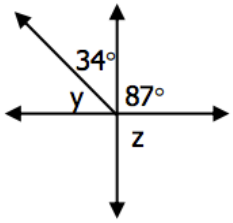
4. Find $m\angle f$ =

Find $m\angle e$ =

Find $m\angle d$ =

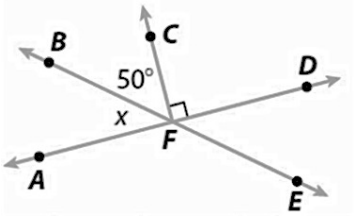


5. Find $m\angle y$ = Find $m\angle z$ =



I. 1.6 Angle pair relationships

1. Find the measure of $\angle x$

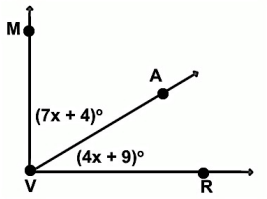


2. Name a pair of nonadjacent complementary angles	3. Name a pair of vertical angles.	
4. Name a pair of adjacent supplementary angles.	5. Are $\angle BFD$ and $\angle AFE$ vertical angles.	6. Name two angles that form a linear pair.

Find the measure of x. Then, find the measure of all the angles.

7. $\angle MVA$ *and* $\angle RVA$ are complimentary angles.
a. Find value of x.

b. $m\angle MVA =$ c. $m\angle RVA =$



8. $\angle 1$ and $\angle 2$ are supplementary. $\angle 1 = (4x - 5)^o$, $\angle 2 = x^o$ Draw a sketch of the figure and find the value of x and then find the measure of each angle.
a. Find value of x.

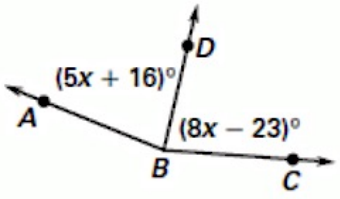
b. $m\angle 1 =$ c. $m\angle 2 =$

J. More 1.6 and Conclusions.

$\overrightarrow{BD}$ bisects $\angle ABC$. Find the value of x and then find the measure of each angle.

1. Write an equation and find the measure of x

2. $m\angle ABD =$ $m\angle CBD =$ $\angle ABC =$



Determine whether each statement is always, sometimes, or never true. Give a reason for your answer.

3. $m\angle ABC + m\angle CBD = m\angle ABD$	4. $\overrightarrow{RT}$ and $\overrightarrow{RS}$ are the same ray
5. $m\angle ABC$ and $m\angle CAB$ are the same angle.	6. If E is between D and F, then $\overrightarrow{ED}$ and $\overrightarrow{EF}$ make up $\overrightarrow{DF}$.