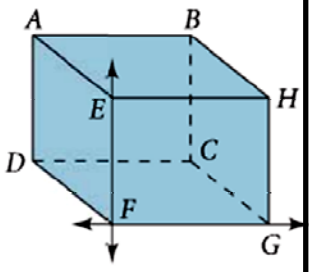
Name:_____Per:___ **Chapter 1 Review**

1. **Use the diagram and name each geometric figure.**

a line a point



the intersection of $\overline{DC}$ and $\overleftrightarrow{CG}$

two planes that intersect in $\overleftrightarrow{EF}$

the plane represented by the top of the box

the plane represented by the front of the box

the intersection of planes *EFG* and *DFG*

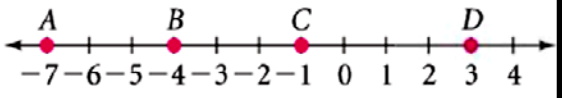
another point in plane *CGH*

2. **Draw the following.**

$\overleftrightarrow{TR}$ $\overline{PQ}$ $\overrightarrow{NV}$

3. **Use the number line at the right. Find the length of each segment.**

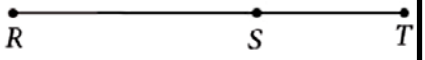
$\overline{AC}$ $\overline{AD}$



$\overline{CD}$ $\overline{BC}$

4. **Use the figure at the right**

If $RS = 15$ and $ST = 9$, then $RT =$ ■.

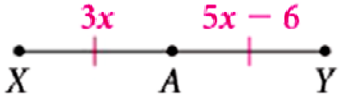


a. Algebra If $RS = 3x + 1$, $ST = 2x - 2$, and $RT = 64$, find the value of x.

b. Find *RS* and *ST*.

5. **Algebra** *A* is the midpoint of $\overline{XY}$.

a Find *XA*.



b. Find *AY* and *XY*.

6. **Complete each statement with *always*, *sometimes*, or *never* to make a true statement.**

Skew lines are _?_ coplanar.

Skew lines _?_ intersect.

Opposite rays _?_ form a line.

Parallel planes _?_ intersect.

Three points are _?_ coplanar.

Intersecting lines are _?_ parallel.

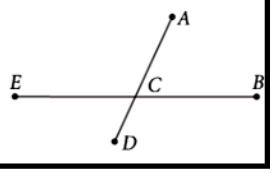
Two points are _?_ collinear.

The intersection of two planes is _?_ a line.

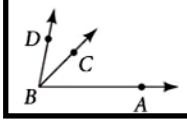
7. **In the diagram, $m\angle ACB = 65$.**
Find each of the following.

$m\angle BCD$

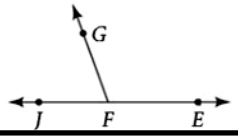
$m\angle ECD$



8. Find $m\angle CBD$ if $m\angle ABC = 45$ and $m\angle ABD = 79$.



Find $m\angle GFJ$ if $m\angle EFG = 110$.



9. **Name an angle or angles in the diagram described by each of the following.**

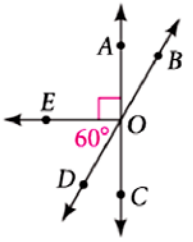
supplementary to $\angle AOD$

adjacent and congruent to $\angle AOE$

supplementary to $\angle EOA$

complementary to $\angle EOD$

a pair of vertical angles

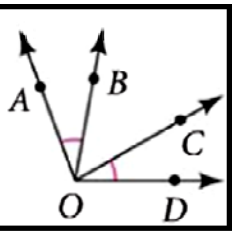


In the diagram above, find the measure of each of the following angles.

$\angle EOC$ $\angle DOC$ $\angle BOC$ $\angle AOB$

10. **Solve for x. Find the angle measures**

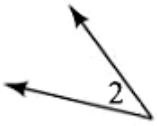
$m\angle AOC = 7x - 2, m\angle AOB = 2x + 8,$
$m\angle BOC = 3x + 14$



Make the construction.

11. Construct the perpendicular bisector of $\overline{AB}$.

12. Construct the angle bisector of $\angle 1$.



13. Construct $\overline{FG}$ so that $FG = AB + CD$.