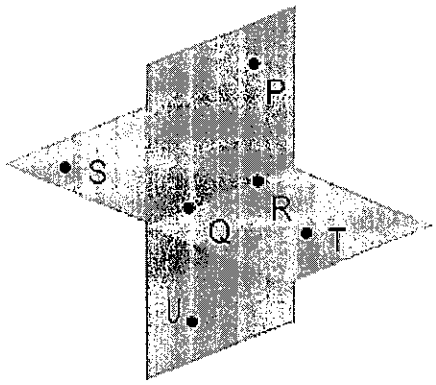
Geometry Honors
Chapter 1 Quick Review

Name Key

Circle the letter of the correct choice.



1. According to the diagram, four coplanar points are

   a) P, Q, R, T (b) Q, R, S, T

   c) Q, R, S, U d) P, Q, S, U

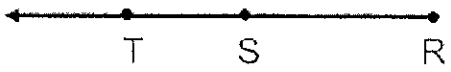
2. The three <u>undefined</u> terms in geometry are

   a) plane, point, space b) point, line, space (c) point, line, plane d) none of these

3. Three ___ points are contained in <u>exactly one</u> plane.

   (a) Coplanar b) noncollinear c) collinear d) distinct

4. A <u>ray</u> shown in the diagram is

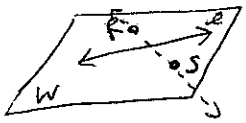


   a) $\overline{TR}$ b) $\overline{SR}$

   c) $\overline{TS}$ (d) $\overrightarrow{RS}$

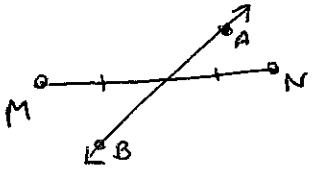
5. In plane W, if points R and S are on opposite sides of line *l*, then

   a) $\overline{RS}$ intersects W coplanar (b) $\overline{RS}$ intersects *l* c) $\overline{TR} \parallel l$ d) $\overline{TR}$ and *l* are not



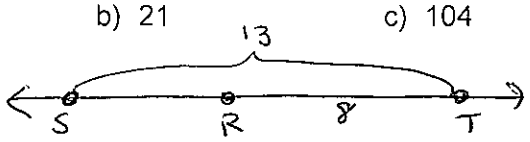
6. If $\overrightarrow{AB}$ bisects $\overline{MN}$, then

   a) M is in $\overrightarrow{AB}$ $\overline{MN}$ is in $\overrightarrow{AB}$ b) $\overline{MN}$ bisects $\overline{AB}$ c) $\overline{MN}$ *is in* $\overrightarrow{AB}$ (d) the midpoint of



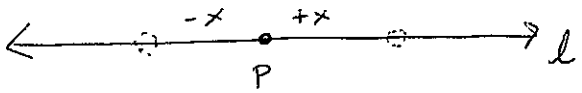
7. Point R is between S and T. If ST =13 and RT = 8, then SR =

a) 5 b) 21 c) 104 d) –5



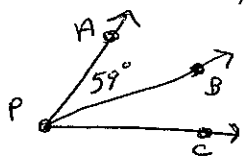
8. Point P is on line *l*. On *l*, there is (are) exactly ___ point(s) at a given distance from P.

a) 0 b) 1 c) 2 d) infinitely many



9. B lies in the interior of $\angle APC$, $m\angle APC = 70$, and $m\angle BPA = 59$. Find $m\angle CPB$.

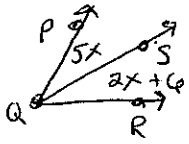
a) 11 b) 149 c) 31 d) 20



70 - 59 = 11

10. $\overline{QS}$ bisects $\angle PQR$. If $m\angle PQS = 5x$ and $m\angle RQS = 2x + 6$, then $x =$

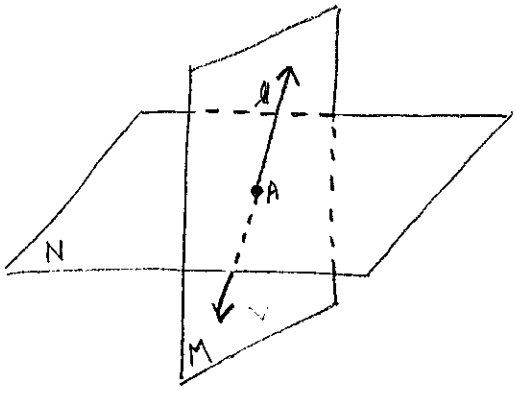
a) 2 b) 12 c) 24 d) 30



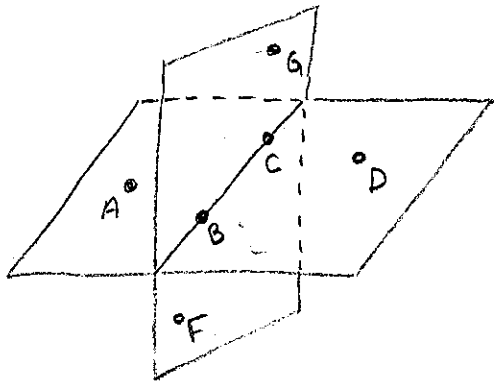
$5x = 2x + 6$
$3x = 6$
$x = 2$

For #11-12, sketch a diagram to satisfy the following conditions:

11. horizontal plane N intersecting vertical plane M at $\overline{AB}$, *l* is contained in M but intersects N at A



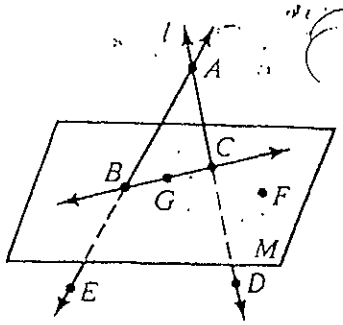
12) A, B, C, D are coplanar
B, C, G, F are coplanar
A, B, G, F are noncoplanar



** If you are interested in trying extra practice problems, refer to your textbook!
Read the Chapter Summary, Pg. 29 then try:
Chapter Review, Pg. 30 and the Chapter Test, Pg. 31

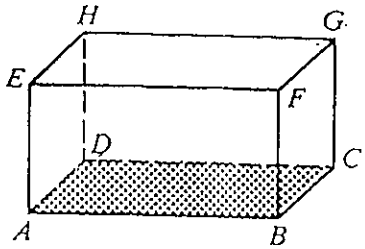
Worksheet: J Sec 2 Name: _____

Classify each statement as true or false.



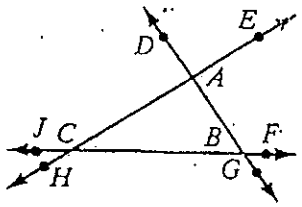
1. $\overleftrightarrow{BC}$ is in plane M. T
2. Plane M contains $\overleftrightarrow{AB}$. F
3. Line l intersects $\overleftrightarrow{AB}$ at point B. F
4. $\overleftrightarrow{AB}$ and $\overleftrightarrow{DA}$ intersect at A. T
5. $\overleftrightarrow{AD}$ is in plane M. F
6. Plane M intersects $\overleftrightarrow{AE}$ at point B. T
7. $\overleftrightarrow{AE}$ intersects plane M at point B. T
8. A, B, and E are collinear. T
9. B, F, and D are collinear. F
10. A, B, and C are coplanar. T
11. B, C, F, and G are coplanar. T
12. A, B, C, and G are coplanar. T
13. A, B, C, and F are coplanar. F

The plane that contains the shaded region can be called plane *ABCD*.



14. Name three lines that intersect at point G. $\overleftrightarrow{HG}$, $\overleftrightarrow{FG}$, $\overleftrightarrow{EG}$
15. Name two planes whose intersection is $\overleftrightarrow{FB}$. EAFB, CBFG
16. Name the intersection of plane $EHGF$ and plane $EFBA$. $\overleftrightarrow{EF}$
17. Name two planes that do not intersect. EHDA & FGCB
18. Are points D, H, G, and C coplanar? yes
19. Are points D, H, G, and F coplanar? no
20. Are points A, B, G, and H coplanar? yes

Classify each statement as true or false.



5. C is between A and B. F
6. $\overrightarrow{AD}$ and $\overrightarrow{AG}$ are opposite rays. T
7. $\overline{CB}$ is the same as $\overline{BC}$. T
8. $\overrightarrow{CB}$ is the same as $\overrightarrow{BC}$. F
9. $\overleftrightarrow{CB}$ is the same as $\overleftrightarrow{BC}$. T
10. $\overline{CB}$ is the same as $\overleftrightarrow{BC}$. F
11. $\overleftrightarrow{JF}$ is the same as $\overleftrightarrow{CB}$. T
12. $\overrightarrow{BA}$ is the same as $\overrightarrow{BD}$. T

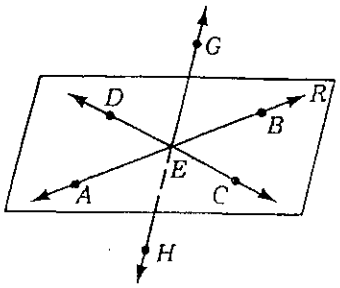
NAME _____ DATE _____ SCORE _____

Points, Lines, Planes, and Angles

For use after Chapter 1

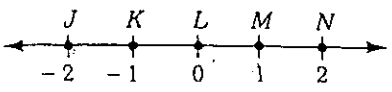
Complete.

1. $\overleftrightarrow{GH}$ intersects plane R at point E.
2. D, E, and C are collinear.
3. $m\angle AEC + m\angle CEB =$ 180.
4. If E is the midpoint of $\overline{AB}$, $AE = 21$, and $EB = 2x - 3$, then the value of x is 12. $2x-3=21$, $2x=24$

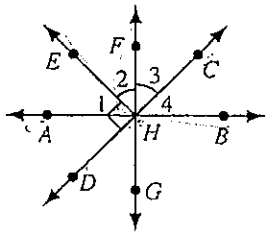


Exs. 1–4

5. What is the coordinate of K? −1
6. What is the point with coordinate −2? J
7. What is the distance JM? 3
8. Which ray is opposite to $\overrightarrow{LM}$? $\overrightarrow{LK}$ or $\overrightarrow{LJ}$
9. State another name for $\angle 1$. $\angle AHE$
10. $m\angle AHE + m\angle EHC =$ $m\angle AHC$
11. State whether $\angle CHG$ appears to be acute, right, obtuse, or straight. obtuse



Exs. 5–8



Exs. 9–19

Write the name of the definition or postulate that justifies the statement about the diagram.

12. $m\angle 1 + m\angle 2 = m\angle AHF$ ∠ add'n post.
13. If H is the midpoint of $\overline{CD}$, then $DH = CH$. definition of midpoint
14. If $\overrightarrow{HC}$ bisects $\angle BHF$, then $\angle 3 \cong \angle 4$. definition of bisect
15. $CH + HD = CD$ Segment add'n post.

Name each of the following.

16. The sides of $\angle EHB$ $\overrightarrow{HE}$ & $\overrightarrow{HB}$
17. A right angle $\angle DHE$
18. An angle bisector $\overrightarrow{HF}$ (bisects $\angle EHC$)
19. Two congruent adjacent angles $\angle EHF$ & $\angle FHC$

Classify each statement as true or false.

20. Two planes intersect in exactly one point. F
21. Two intersecting lines are always coplanar. T
22. Three collinear points lie in exactly one plane. F
23. There is exactly one line through two points. T