Day 2

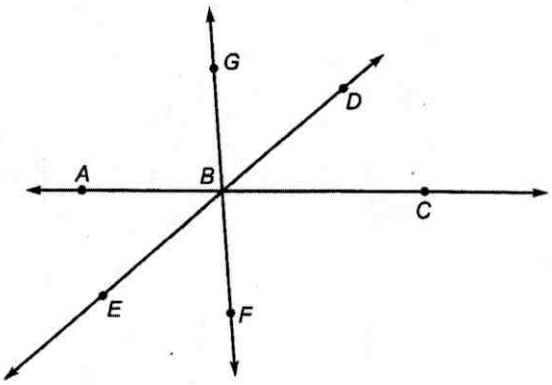
1-2 Practice

NAME _____ DATE _____ PERIOD _____

Student Edition
Pages 12–17

Points, Lines, and Planes

Use the figure at the right to name examples of each term.



1. ray with point C as the endpoint

2. point that is not on $\overline{GF}$

3. two lines

4. three rays

Draw and label a figure for each situation described.

5. Lines ℓ, m and j intersect at P.

6. Plane $\mathcal{N}$ contains line ℓ.

7. Points A, B, C, and D are noncollinear.

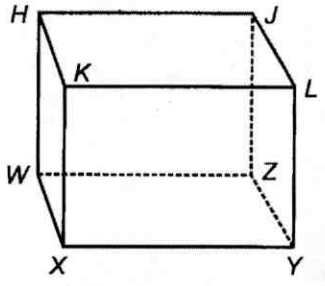
***Determine whether each model suggests a* point, *a* line, *a* ray, *a* segment, *or a* plane.**

8. the edge of a book

9. a floor of a factory

10. the beam from a car headlight

Refer to the figure at the right to answer each question.



11. Are points H, J, K, and L coplanar?

12. Name three lines that intersect at X.

13. What points do plane $WXYZ$ and HW have in common?

14. Are points W, X, and Y collinear?

15. List the possibilities for naming a line contained in plane $WXKH$.

Day 2

1-3 Practice

NAME _____ DATE _____ PERIOD _____

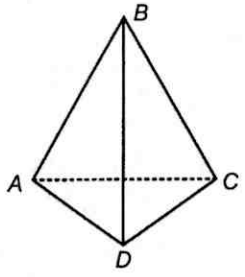
Student Edition
Pages 18–22

Postulates

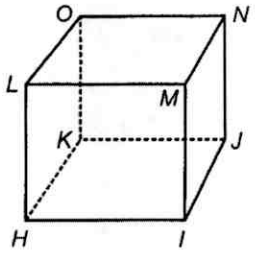
1. Points A, B, and C are noncollinear. Name all of the different lines that can be drawn through these points.

2. What is the intersection of $\overleftrightarrow{LM}$ and $\overleftrightarrow{LN}$?

3. Name all of the planes that are represented in the figure.



Refer to the figure at the right.



4. Name the intersection of ONJ and KJI.

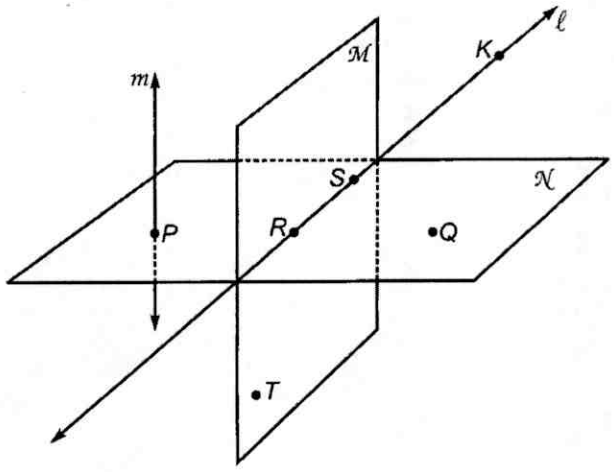
5. Name the intersection of KOL and MLH.

6. Name two planes that intersect in $\overleftrightarrow{MI}$.

***In the figure, P, Q, R, and S are in plane $\mathcal{N}$. Determine whether each statement is* true *or* false.**

7. R, S, and T are collinear.

8. There is only one plane that contains all the points R, S, and Q.



9. $\angle PQT$ lies in plane $\mathcal{N}$.

10. $\angle SPR$ lies in plane $\mathcal{N}$.

11. If X and Y are two points on line m, then $\overleftrightarrow{XY}$ intersects plane $\mathcal{N}$ at P.

12. Point K is on plane $\mathcal{N}$.

13. $\mathcal{N}$ contains $\overline{RS}$.

14. T lies in plane $\mathcal{N}$.

15. R, P, S, and T are coplanar.

16. ℓ and m intersect.

Day 3

Use the figure at the right for Exercises 8–11.

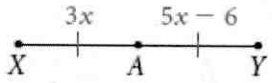
8. If $RS = 15$ and $ST = 9$, then $RT =$ ■.

9. If $ST = 15$ and $RT = 40$, then $RS =$ ■.

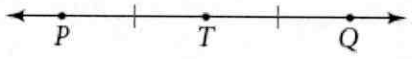
10. a. Algebra If $RS = 3x + 1$, $ST = 2x - 2$, and $RT = 64$, find the value of x.
b. Find RS and ST.

11. a. Algebra If $RS = 8y + 4$, $ST = 4y + 8$, and $RT = 15y - 9$, find the value of y.
b. Find RS, ST, and RT.

12. Algebra A is the midpoint of $\overline{XY}$.
a Find XA.
b. Find AY and XY.



Algebra In Exercises 13–15, use the figure and find *PT*.

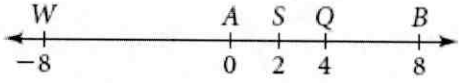


13. $PT = 5x + 3$ and $TQ = 7x - 9$

14. $PT = 4x - 6$ and $TQ = 3x + 4$

15. $PT = 7x - 24$ and $TQ = 6x - 2$

Use the figure at the right for Exercises 29–32.



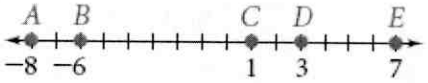
29. Find the midpoint of $\overline{AB}$.

30. What is the coordinate of the midpoint of $\overline{QB}$?

31. What is the coordinate of the midpoint of $\overline{WA}$?

32. What is the coordinate of the midpoint of the segment formed by the two points you found in Exercises 30 and 31?

In Exercises 42–45, describe the statement as *true* or *false*. Explain.



Exercises 42–46

42. $\overline{AB} \cong \overline{CD}$

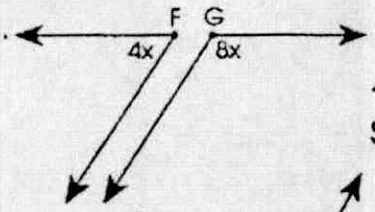
43. $BD < CD$

44. $AC + BD = AD$

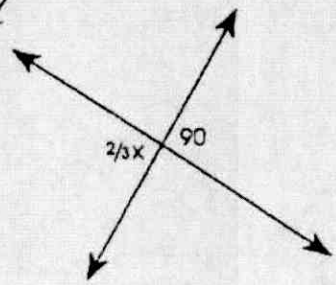
45. $AC + CD = AD$

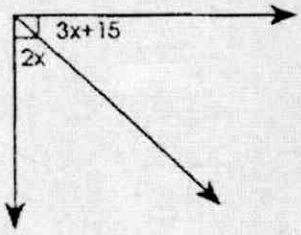
Dozen of Practice Problems with special angles..... Day 4

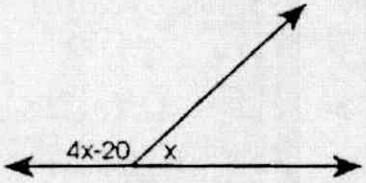
Find x.

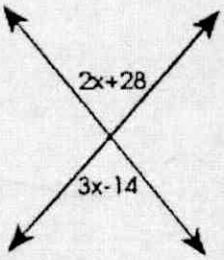
1. 

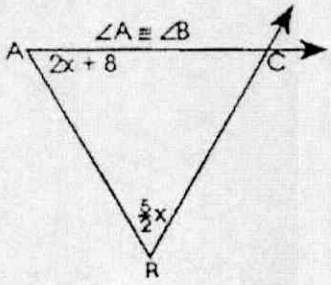
∠F and ∠G are supplementary.

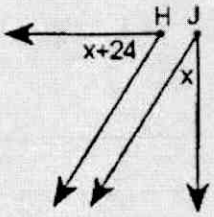
2. 

3. 

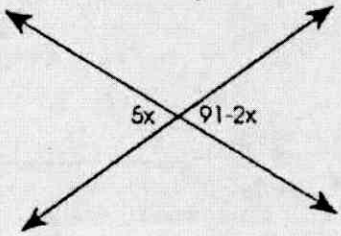
4. 

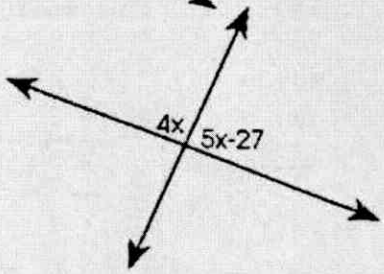
5. 

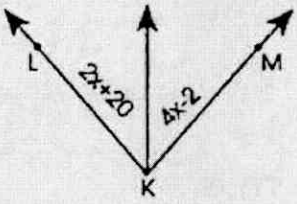
6. 

7. 

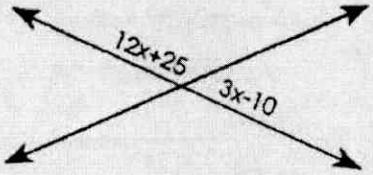
∠ H and ∠J are complementary.

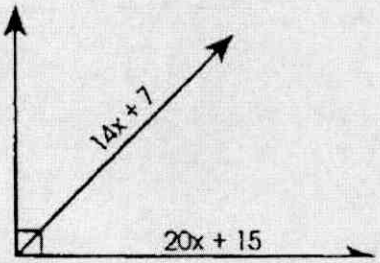
8. 

9. 

10. 

∠LKM is a right angle

11. 

12. 

Day 5

Transparency 1.2.7

ACTIVITY 7

PROCESSING BISECTOR OF AN ANGLE

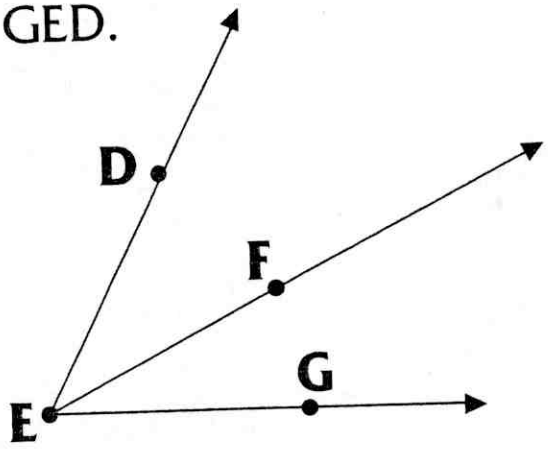
Structure: Boss/Secretary

$\overrightarrow{EF}$ bisects $\angle DEG$. ***The diagram is not drawn to scale.***

1. If $m\angle DEG = 88°$, find $m\angle FEG$.

2. If $m\angle FED = 27°$, find $m\angle GED$.

3. If $m\angle DEF = 3x + 1$ and $m\angle DEG = 5x + 19$, find the value of x.



4. If $m\angle DEF = 5x - 3$ and $m\angle FEG = 2x + 15$, find the value of x.

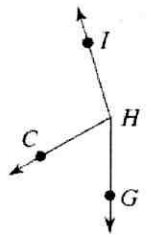
5. If $m\angle FEG = 6x - 7$ and $m\angle FED = 2x + 41$, find the $m\angle DEG$.

6. If $m\angle FEG = 4x + 3$ and $m\angle DEG = 2x + 36$, find the $m\angle FED$.

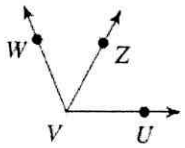
Day 5

ANGLE ADDITION POSTULATE:

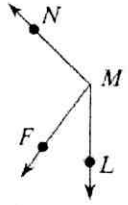
3) $m\angle GHC = 60°$ and $m\angle CHI = 104°$. Find $m\angle GHI$.



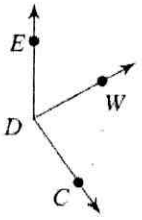
4) Find $m\angle WVU$ if $m\angle ZVU = 62°$ and $m\angle WVZ = 50°$.



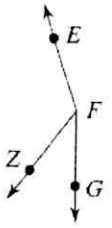
5) $m\angle FMN = 99°$ and $m\angle LMF = 36°$. Find $m\angle LMN$.



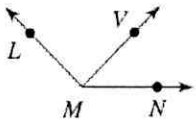
6) Find $m\angle WDC$ if $m\angle EDC = 145°$ and $m\angle EDW = 61°$.



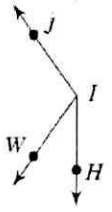
15) $m\angle GFZ = 38°$, $m\angle ZFE = 2x + 125$, and $m\angle GFE = x + 163$. Find x.



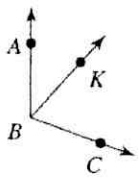
16) Find x if $m\angle LMN = 135°$, $m\angle LMV = -1 + 45x$, and $m\angle VMN = 23x$.



17) Find $m\angle HIW$ if $m\angle WIJ = 10x$, $m\angle HIJ = 145°$, and $m\angle HIW = 2x + 13$.



18) $m\angle ABC = 17x + 8$, $m\angle ABK = 42°$, and $m\angle KBC = 12x - 4$. Find $m\angle ABC$.



Name _____ Class _____ Date _____

Practice 1-6

Day 6

The Coordinate Plane

Graph each point in the coordinate plane.

1. $A(-2, 5)$
2. $B(5, -2)$
3. $C(0, 6)$
4. $D(-4, 0)$
5. $E(-4, -2)$

Find the distance between the points to the nearest tenth.

6. $L(-4, 11), M(-3, 4)$
7. $N(1, 0), P(3, 8)$
8. $Q(10, 10), R(10, -2)$
9. $S(0, 5), T(0, -3)$
10. $U(11, 0), V(-1, 0)$
11. $W(2, 7), X(1, 2)$

Find the coordinates of the midpoint of each segment. The coordinates of the endpoints are given.

12. $A(6, 7), B(4, 3)$
13. $C(-1, 5), D(2, -3)$
14. $E(14, -2), F(7, -8)$
15. $O(0, 0), G(-5, 12)$
16. $H(2.8, 1.1), I(-3.4, 5.7)$
17. $J(2\frac{1}{2}, -\frac{1}{4}), K(3\frac{1}{4}, -1)$

18. The midpoint of $\overline{AB}$ is $(1, 2)$. The coordinates of A are $(-3, 6)$. Find the coordinates of B.
19. The midpoint of $\overline{CD}$ is $(4, 11)$. The coordinates of D are $(4, 12)$. Find the coordinates of C.
20. The midpoint of $\overline{EF}$ is $(-3, 7)$. The coordinates of E are $(-3, 10)$. Find the coordinates of F.
21. Graph the points $A(2, 1)$, $B(2, -5)$, $C(-4, -5)$, and $D(-4, 1)$. Draw the segments connecting A, B, C, and D in order. Are the lengths of the sides of $ABCD$ the same? Explain.
22. A crow flies to a point that is 1 mile east and 20 miles south of its starting point. How far does the crow fly?

Quadrilateral *PQSR* has coordinates as follows:
***P*(0, 0), *Q*(−1, 4), *R*(8, 2), and *S*(7, 6).**

23. Graph quadrilateral $PQSR$.
24. What is the perimeter of $PQSR$?
25. What is the midpoint of $\overline{QR}$?

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