

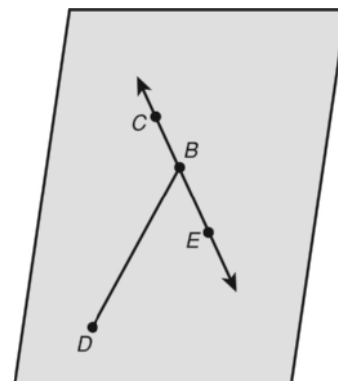
**LESSON**

**Practice B**

**1-1**

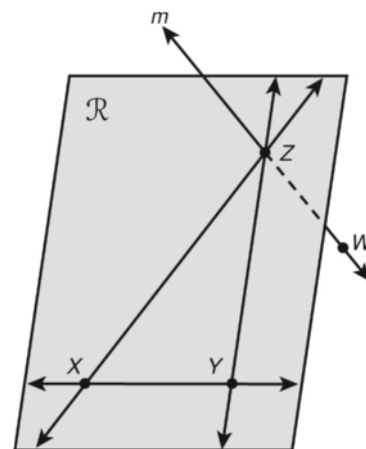
**Understanding Points, Lines, and Planes**

Use the figure for Exercises 1–7.



1. Name a plane. \_\_\_\_\_
2. Name a segment. \_\_\_\_\_
3. Name a line. \_\_\_\_\_
4. Name three collinear points.  
\_\_\_\_\_
5. Name three noncollinear points.  
\_\_\_\_\_
6. Name the intersection of a line and a segment not on the line. \_\_\_\_\_
7. Name a pair of opposite rays. \_\_\_\_\_

Use the figure for Exercises 8–11.



8. Name the points that determine plane  $\mathcal{R}$ .  
\_\_\_\_\_
9. Name the point at which line  $m$  intersects plane  $\mathcal{R}$ . \_\_\_\_\_
10. Name two lines in plane  $\mathcal{R}$  that intersect line  $m$ .  
\_\_\_\_\_
11. Name a line in plane  $\mathcal{R}$  that does not intersect line  $m$ . \_\_\_\_\_

**Draw your answers in the space provided.**

Michelle Kwan won a bronze medal in figure skating at the 2002 Salt Lake City Winter Olympic Games.

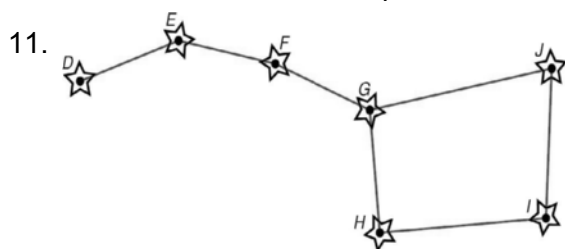
12. Michelle skates straight ahead from point  $L$  and stops at point  $M$ . Draw her path.
13. Michelle skates straight ahead from point  $L$  and continues through point  $M$ . Name a figure that represents her path. Draw her path.
14. Michelle and her friend Alexei start back to back at point  $L$  and skate in opposite directions. Michelle skates through point  $M$ , and Alexei skates through point  $K$ . Draw their paths.

# Answer Key

## LESSON 1-1

### Practice A

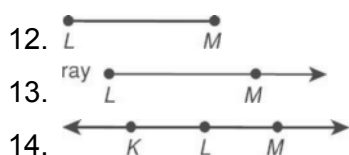
- point  $A$  and point  $C$
- point  $B$
- point  $A$ , point  $B$ , and point  $C$
- line
- line
- plane
- plane
- point  $T$  and point  $U$
- one
- point  $U$



12.  $\overline{PQ}$

### Practice B

- Possible answers: plane  $BCD$ ; plane  $BED$
- $\overline{BD}$ ,  $\overline{BC}$ ,  $\overline{BE}$ , or  $\overline{CE}$
- Possible answers:  $\overline{EC}$ ;  $\overline{BC}$ ;  $\overline{BE}$
- Points  $B$ ,  $C$ , and  $E$
- Possible answers: points  $B$ ,  $C$ , and  $D$  or point  $B$ ,  $E$ , and  $D$
- point  $B$
- $\overline{BC}$  and  $\overline{BE}$
- points  $X$ ,  $Y$ , and  $Z$
- point  $Z$
- $\overline{XZ}$  and  $\overline{YZ}$
- $\overline{XY}$



### Practice C

- A plane is named with three noncollinear points.  $H$ ,  $I$ , and  $J$  are collinear.

2. Possible answers: plane  $HIK$ ; plane  $HJK$ ; plane  $IKJ$

3.  $\overline{HI}$ ,  $\overline{HJ}$ ,  $\overline{IJ}$ ,  $\overline{IH}$ ,  $\overline{JH}$ , and  $\overline{JI}$

4.  $\overline{ST}$  and  $\overline{TS}$  are not the same figure because  $\overline{ST}$  has its endpoint at  $S$  and  $\overline{TS}$  has its endpoint at  $T$ .

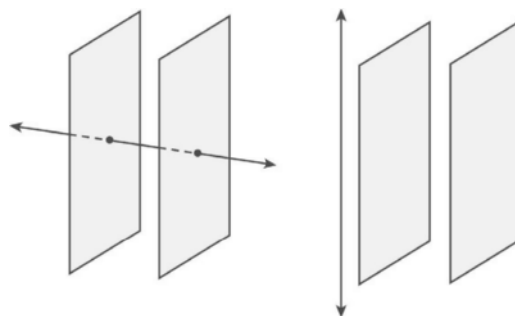
5.  $\overline{ST}$  and  $\overline{TS}$  are not opposite rays because they do not have the same endpoint.

6. a line

7. point, line, plane

8. Through any three noncollinear points there is exactly one plane containing them.

9. If two planes intersect, then they intersect in exactly one line.



10.

### Reteach

1.  $\bullet W$



2.



3.



4.

5. line  $CD$  or  $\overline{CD}$

6. ray  $ST$  or  $\overline{ST}$

7. plane  $LMN$ ; plane  $Q$

8. segment  $WX$ ;  $\overline{WX}$

9. Possible answers:  $A$ ,  $P$ , and  $B$ ;  $C$ ,  $P$ , and  $D$ ;  $J$ ,  $D$ , and  $K$

10. Sample answer:  $A$ ,  $P$ , and  $D$

11. Sample answer:  $C$ ,  $P$ ,  $B$ , and  $D$

12. Sample answer:  $J$ ,  $D$ ,  $P$ , and  $B$

13.  $\overline{AB}$  and  $\overline{JK}$

14. point  $D$