

**Practice B**

For use with pages 71–78

**Rewrite the conditional statement in if-then form.**

1. It is time for dinner if it is 6 P.M.
2. There are 12 eggs if the carton is full.
3. A number is divisible by 6 if it is divisible by 2 and 3.
4. An obtuse angle is an angle that measures more than  $90^\circ$  and less than  $180^\circ$ .
5. All students taking geometry have math during an even numbered block.

**Decide whether the statement is *true* or *false*. If false, provide a counterexample.**

6. The equation  $4x - 3 = 12 + 2x$  has exactly one solution.
7. If  $x^2 = 36$ , then  $x$  must equal 18 or  $-18$ .
8. Thanksgiving is celebrated on a Thursday.
9. If you visited Springfield, then you've been to Illinois.
10. Two lines intersect in at most one point.

**Write the converse, inverse, and contrapositive of each statement.**

11. If you like hockey, then you go to the hockey game.
12. If  $x$  is odd, then  $3x$  is odd.
13. If  $m\angle P = 90^\circ$ , then  $\angle P$  is a right angle.

**Draw a sketch to illustrate each postulate.**

14. If two lines intersect, then their intersection is exactly one point.
15. If two points lie in a plane, then the line containing them lies in the plane.
16. If two planes intersect, then their intersection is a line.

**Use the diagram to state the postulate(s) that verifies the truth of the statement.**

17. The points  $E$ ,  $F$ , and  $H$  lie in a plane (labeled  $R$ ).
18. The points  $E$  and  $F$  lie on a line (labeled  $m$ ).
19. The planes  $Q$  and  $R$  intersect in a line (labeled  $l$ ).
20. The points  $E$  and  $F$  lie in a plane  $R$ . Therefore, line  $m$  lies in plane  $R$ .

