GEO022704 Sheet 1

LESSON 2.1

NAME _____ due M 3/1 DATE _____

Practice B

For use with pages 71–78

1–5, 6, 7, 9, 10, 13

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° and less than 180°.
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.

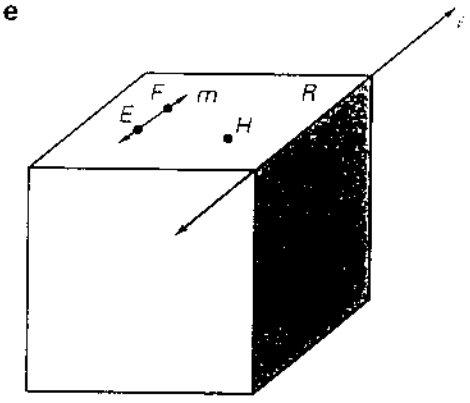
Write the converse, inverse, and contrapositive of each statement.

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

Lesson 2.1

GEO #2 2704 Sheet 2

LESSON 2.1

NAME _____ DATE _____

Practice C

For use with pages 71–78

6, 8, 12-20

Rewrite the conditional statement in if-then form.

1. I will go to the game if I get all of my homework done.
2. The water will freeze if the temperature is 10°F.
3. A student on the high honor roll has at least a 90 average.
4. Bert goes shopping for groceries only on Wednesday.
5. The number 2 is a factor of every even number.

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

6. The equation $-3x - 10 = 5 + 2x$ has exactly one solution.
7. If $x > 0$, then $x^2 > x$.
8. For any real numbers a and b, $|a + b| = |a| + |b|$.
9. If you visited the Jefferson Monument, then you've been to Washington, D.C.
10. Two collinear rays intersect.

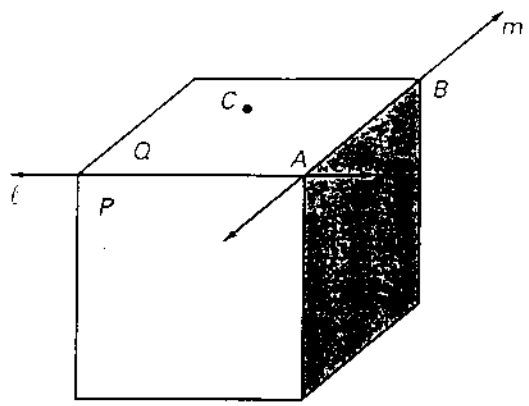
Write the converse, inverse, and contrapositive of each statement. Identify each statement as *true* or *false*.

11. If you like volleyball, then you like to be at the beach.
12. If $x + 1$ is even, then x is odd.
13. If $m\angle P = 109°$, then $\angle P$ is obtuse.

Draw a sketch to illustrate each postulate.

14. A line contains at least two points.
15. Through any three noncollinear points there exists exactly one plane.
16. A plane contains at least three noncollinear points.

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



17. The point A is the intersection of lines l and m.
18. The points A, B, and C lie in a plane (labeled Q).
19. The planes P and Q interesect in a line (labeled l).
20. The points A and B lie on a line (labeled m).