

Conditional Sentences and Logical Reasoning 3

Geometry

Identify the hypothesis and conclusion in each conditional sentence, then write the converse.

- 1) If you are left-handed, then you do everything with your left hand.
- 2) If you don't get enough sleep, then you will get sick.
- 3) If you are a girl, then you have long hair.
- 4) If you are from California, then you love the beach.
- 5) You wear a costume, if it is Halloween.
- 6) The baby will cry, if he is hungry.
- 7) If you take medicine, then you will get better.
- 8) If you do not warm-up correctly, you will get muscle cramps.
- 9) If $3x - 13 = 23$, then $x = 12$
- 10) $k = -5$, if $5k + 1 = 24$

Write the following sentences in conditional form.

- 11) Flowers smell sweet.
- 12) People on vacation stay in hotels.
- 13) People from Ireland have red hair and green eyes.
- 14) Rich people live in Beverly Hills.

Determine whether each statement and its converse are true or false.

- 15) If you live in Utah, then you love the snow.
- 16) If you have red hair, then you have a temper.
- 17) If a man is tall, then he is good at basketball.
- 18) If a person is Scottish, then he/she plays the bagpipes.

Give a counterexample for each conclusion.

- 19) All old people have gray hair.
- 20) All boys play football.
- 21) Soda has caffeine.
- 22) All babies are born in the hospital.
- 23) Everybody loves the Lord of the Rings trilogy.
- 24) All polygons have 5 sides.
- 25) All reptiles have four legs.
- 26) All girls wear earrings.

Use the following assumptions to reach a conclusion.

- 27)
 - i) Tina loves chocolate.
 - ii) M & M's have chocolate.
- 28)
 - i) Cops like donuts.
 - ii) Mike is a cop
- 29)
 - i) Sharon like Disney movies.
 - ii) *Mulan* is a Disney movie.
- 30)
 - i) Girls wear high heels.
 - ii) Sarah is a girl.
- 31)
 - i) Kara goes to church on Sunday.
 - ii) Kara is at church,
- 32)
 - i) Kevin takes aspirin when he has a headache.
 - ii) Kevin is taking aspirin.
- 33)
 - i) When it rains, it is cold.
 - ii) When it is cold, my mom makes hot chocolate.
 - iii) I love to drink hot chocolate.
 - iv) It is raining.
- 34)
 - i) Jamie is older than David.
 - ii) David is 8 years older than Jared.
 - iii) Jared is 30 years old.
- 35)
 - i) Kate bought a blouse, skirt, jacket, and shoes.
 - ii) The skirt and the jacket cost the same amount.
 - iii) The skirt cost twice as much as the blouse.
 - iv) The shoes cost \$17 less than the blouse.
 - v) The shoes cost \$25.