

(A)

(2) DEFINITIONS

(4) a) THEOREM

b) DEFINITION

(14) WENDY - PURPLE MONKEY

JODY - GREEN LIZARD

KATIE - RED CROC.

(B)

(2) a) CONJ: IF PERIM = 30, THEN SIDE = 10  
INV: IF SIDES  $\neq 10$ , THEN PERIM  $\neq 30$

CONTRA: IF PERIM  $\neq 30$ , THEN SIDE  $\neq 10$

b) CONJ: IF  $0 < x < 90$ , THEN ACUTE

INV: IF NOT ACUTE, THEN NOT  $0 < x < 90$

CONTRA: IF NOT  $0 < x < 90$ , THEN NOT ACUTE

(3) a.) BICONDITIONAL

b.) NOT BICONDITIONAL

(5) a)  $d \rightarrow \sim c, \sim c \rightarrow a, a \rightarrow b, b \rightarrow f$

$d \rightarrow f$

b.)  $s \rightarrow r, r \rightarrow z, z \rightarrow \sim p$   
CONTRA

$s \rightarrow \sim p$

c.)  $w \rightarrow c, g \rightarrow h, c \rightarrow g, b \rightarrow w$

$b \rightarrow w, w \rightarrow c, c \rightarrow g, g \rightarrow h$

$b \rightarrow h$

(6) CONJ: IF COLLINEAR, THEN MIDPOINT

INV: IF NOT MIDPT, THEN NOT COLLINER

CONTRA: IF NOT COLLINEAR, THEN NOT MIDPT

(9)  $g \rightarrow b, b \rightarrow \sim c, \sim c \rightarrow \sim t, \sim t \rightarrow \sim p$

$g \rightarrow \sim p$  or  $p \rightarrow \sim g$

(10)  $L \rightarrow H, H \rightarrow \sim M, \sim M, \sim L$

$L \rightarrow \sim L$

IF LWE IS LONG, THEN LWE IS NOT LONG

CONC: AT LEAST ONE STATEMENT IS FALSE!