

LOGIC: VERIFYING ARGUMENTS [PIRNOT 3.4]

EX 3.4.1: (a) What is the form of the following argument? (b) Is the argument valid?

If my Internet connection is broken, then my day is ruined.
My Internet connection is broken.

 \therefore My day is ruined.

EX 3.4.2: (a) What is the form of the following argument? (b) Is the argument valid?

If my Internet connection is broken, then my day is ruined.
My day is not ruined.

 \therefore My Internet connection is not broken.

EX 3.4.3: (a) What is the form of the following argument? (b) Is the argument valid?

If my Internet connection is broken, then my day is ruined.
My day is ruined.

 \therefore My Internet connection is broken.

EX 3.4.4: (a) What is the form of the following argument? (b) Is the argument valid?

Either I drove to Houston or I drove to Dallas.
I did not drive to Dallas.

 \therefore I drove to Houston.

EX 3.4.5: (a) What is the form of the following argument? (b) Is the argument valid?

If my Internet connection is broken, then my day is ruined.
My Internet connection is not broken.

 \therefore My day is not ruined.

EX 3.4.6: Using a truth table, determine whether the following argument is valid or invalid:

$$\frac{\sim P \quad P \rightarrow Q}{\therefore \sim Q \wedge P}$$

EX 3.4.7: Using a truth table, determine whether the following argument is valid or invalid:

$$\frac{R \quad R \rightarrow Q \quad \sim P \vee \sim Q}{\therefore \sim P}$$