MATH 174   **Name** _____

Quiz #2

Points: There are two problems on this quiz; each is worth 5 points.

1. Using the truth table below, determine whether the argument form below is valid or invalid.

<div style="display: flex; justify-content: space-between;">

Truth Table

p	q	r	$\sim q$	$p \rightarrow q$	$\sim q \vee r$
T	T	T	F	T	T
T	T	F	F	T	F
T	F	T	T	F	T
T	F	F	T	F	T
F	T	T	F	T	T
F	T	F	F	T	F
F	F	T	T	T	T
F	F	F	T	T	T

Argument Form

p

$p \rightarrow q$

$\sim q \vee r$

$\therefore r$

</div>

Answer: [_____]   (write "valid" or "invalid")

2. Give a clear and correct justification of your answer in (1). Your justification should make appropriate use of the truth table. Indicate how you use truth values from certain columns (which ones?) to determine the row(s) to consider for the truth values of the conclusion. What then determines your answer to (1)?