

# Math 2001: PHW3

Due: February 3, 2016

1. From the book do:

- 2.1: 6, 10, 12
- 2.3: 4, 12
- 2.5: 2, 6, 10
- 2.6: 10

2. Consider the following incomplete truth table. Fill in the column headings so that this is a valid truth table, using only some combination of  $P$ ,  $Q$ ,  $R$ ,  $\wedge$ , and  $\sim$ .

$P$	$Q$	$R$					
$T$	$T$	$T$	$T$	$F$	$F$	$T$	$T$
$T$	$T$	$F$	$F$	$F$	$F$	$T$	$T$
$T$	$F$	$T$	$F$	$F$	$F$	$T$	$T$
$T$	$F$	$F$	$F$	$F$	$T$	$F$	$T$
$F$	$T$	$T$	$F$	$F$	$F$	$T$	$T$
$F$	$T$	$F$	$F$	$F$	$F$	$T$	$T$
$F$	$F$	$T$	$F$	$F$	$F$	$T$	$F$
$F$	$F$	$F$	$F$	$T$	$F$	$T$	$T$