# Math 2283 - Introduction to Logic
## Quiz #5 - 2016.01.25 Solutions

1. Complete the following table:

| expression | symbol |
|:---:|:---:|
| *not* | $\sim$ |
| *and* | $\wedge$ |
| *or* | $\vee$ |
| *if, ... then ...* | $\rightarrow$ |
| *... if, and only if ...,* | $\leftrightarrow$ |

1. Determine which set of people satisfy the following sentential function:

$$\exists\, x \ (\, x \text{ is the sister of } y\,)$$

To make this sentence true, $y$ has to have a sister. Thus the set of all $y$ we should consider is the set of all people who have a sister.