

**PHIL 1012 Introductory Logic · Problem Set 5**

**12 July 2017**

1. Translate the following into MPL:

Everyone runs only if someone does.

2. For each occurrence of a variable in the following formula, say whether that occurrence is free or bound. Is the formula open or closed?

$$\exists x((Gy \wedge \forall y Fy) \vee Fx)$$