

## 1 Exercise: predicate logic

Translate the following natural language sentences into Predicate Logic. You'll want to use logical connectives from propositional logic (like  $\neg$ ,  $\&$ ,  $\vee$ , and  $\rightarrow$ ) for some of them.

1. Maz saw Rey SEE(**m,r**)
2. BB-8 is orange ORANGE(**b**)
3. Jakku is near this planet NEAR(**j, this planet**) or NEAR(**j,p**)
4. The droid showed the map to the scavenger  
SHOW(**the droid, the map, the scavenger**)  
or SHOW(**d,m,s**)
5. Luke is old and Rey isn't OLD(**l**)  $\&$   $\neg$ OLD(**r**)
6. Finn is a brave Stormtrooper  
BRAVE(**f**)  $\&$  STORMTROOPER(**f**)
7. Finn hugged Rey, and Poe hugged her too  
HUG(**f,r**)  $\&$  HUG(**p,r**)
8. If Luke dies, Kylo will be happy  
DIE(**l**)  $\rightarrow$  HAPPY(**k**)