



### Numerical Values & Expressions:

INIT water tub = 1 {m<sup>3</sup>}  
 faucet = 1 {m<sup>3</sup>/sec}  
 drain = drain velocity \* drain area {m<sup>3</sup>/sec}  
 drain area = .05 {m<sup>2</sup>}  
 area of tub base = .5 {m<sup>2</sup>}  
 depth of water = water tub / area of tub base {m}  
 gravity = 9.8 {m/sec<sup>2</sup>}  
 drain velocity = SQRT(2 \* gravity \* depth of water) {m/sec}