Woodward, Ryan

V00857268

STAT 260 Assignment 2

Instructor: C. Barone

**Part 1**

**1a)**

> ppois(25, lambda = 33.75)

[1] 0.07288401

**1b)**

> dpois(30, lambda = 33.75)

[1] 0.05849442

**1c)**

> less34 = ppois(34, lambda = 33.75)

> less34

[1] 0.5624985

> greater31 = ppois(30, lambda = 33.75)

> greater31

[1] 0.2947687

> totalProb = (less34 - greater31) / greater31

> totalProb

[1] 0.9082707

**Part 2**

**2a)**

> pbinom(100,size=100,p=0.013) - pbinom(3,size=100,p=0.013)

[1] 0.04198515

**2b)**

> 1 - pnorm(3.5,mean=1.3,sd=1.13274)

[1] 0.02605685

**Part 3**

**3a)**

> pnorm(30.7,mean=28.3,sd=1.23) - pnorm(27.8,mean=28.3,sd=1.23)

[1] 0.6322984

**3b)**

> 1 - pnorm(29.5,mean=28.3,sd=1.23)

[1] 0.1646289

**3c)**

> totalProb = (pnorm(30.5,mean=28.3,sd=1.23) - pnorm(29,mean=28.3,sd=1.23)) / pnorm(29,mean=28.3,sd=1.23)

> totalProb

[1] 0.3464057