

CH 4.2

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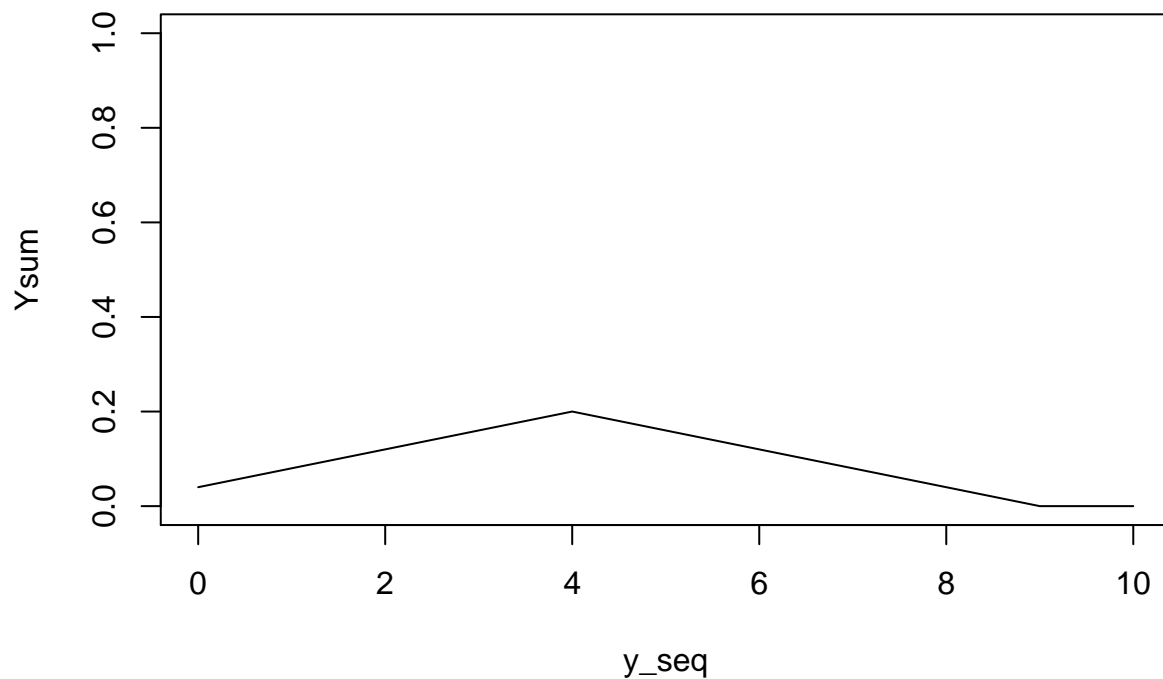
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MATH 324 Ch 4.2

Sketch CDFs, PDFs with Different Parameters

8A)

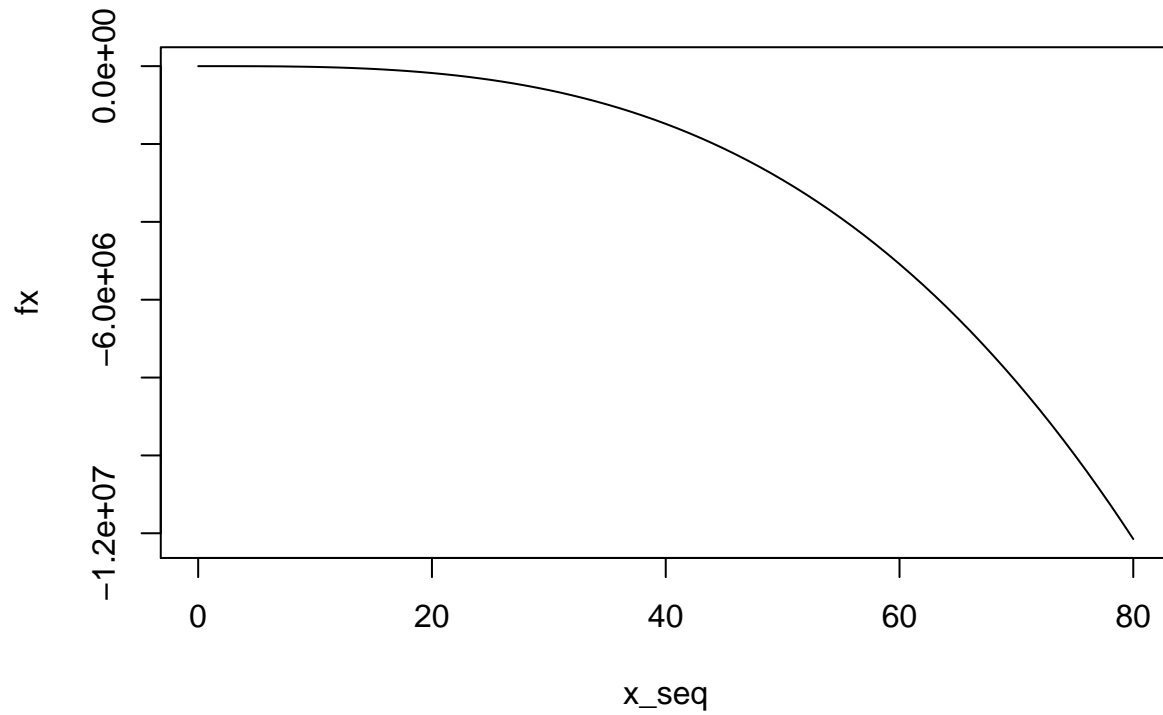
```
y_seq <- seq(0, 10, by = 1)
ylength <- length(y_seq)
yz <- 1:ylength
Ysum <- y_seq
for (y in yz){
  for(j in 1:y){
    if ((y >= 0) && (y < 5 )){
      Ysum[y] = (1/25)*y
    }
    else if((y >= 5) && (y < 10)){
      Ysum[y] = (2/5)-((1/25)*(y))
    }
    else{
      Ysum[y] = 0
    }
  }
}
plot(y_seq,Ysum, type = "l", xlim=c(0,10), ylim=c(0,1))
```



8B)

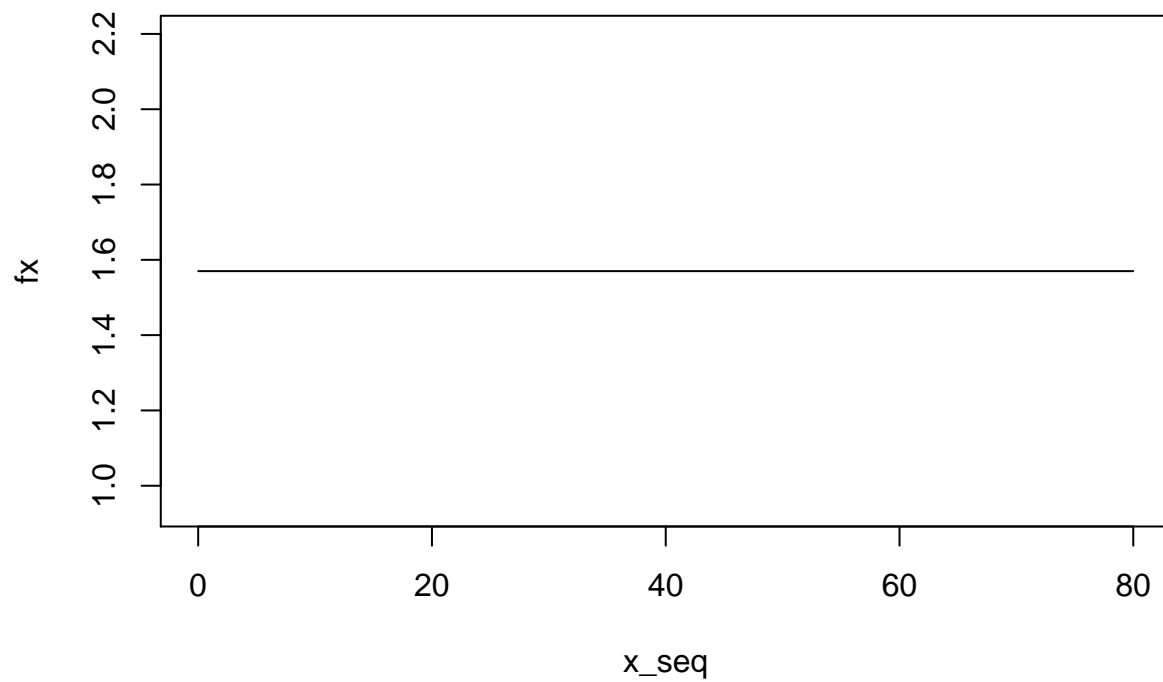
$\tau = 2\pi$ $\theta = 4$

```
x_seq <- seq(0, 80, by = 1)
fx = ((4/2*3.14)*(1-(x_seq/2*3.14))^(4-1))
plot(x_seq, fx, type = 'l')
```



$\tau = 2\pi$ $\theta = 1$

```
x_seq <- seq(0, 80, by = 1)
fx = ((1/2*3.14)*(1-(x_seq/2*3.14))^(1-1))
plot(x_seq, fx, type = 'l')
```



$\tau = 2\pi$ $\theta = 0.5$

```
x_seq <- seq(0, 80, by = 1)
fx = ((0.5/2*3.14)*(1-(x_seq/2*3.14))^(0.5-1))
plot(x_seq, fx, type = 'l')
```

