Perform the below operations:

a. Find the probability that X is equal to 17

Answer: dbinom(17,31,0.447)

```
[1] 0.07532248
```

b. Find the probability that X is at most 13

Answer: 1-pbinom(12,31,0.447)

```
[1] 0.6858735
```

c. Find the probability that X is bigger than 11.
Answer: 1-pbinom(11,31,0.447)

```
[1] 0.8020339
```

d. Find the probability that X is at least 15.
Answer: pbinom(15,31,0.447)

```
[1] 0.7246284
```

e. Find the probability that X is between 16 and 19, inclusive.

Answer: pbinom(19,31,0.447)- pbinom(16,31,0.447)

```
[1] 0.1488671
```