

```
# Question 1 a-c
```

```
lm.fit <- lm(Outstate ~ Top10perc)
lm.fit
```

```
# Question 1 d
```

```
confint(lm.fit)
```

```
# Question 1 e
```

```
predict(lm.fit, data.frame(Top10perc = c(33)), interval = "confidence")
```

```
# Question 1 f
```

```
ggplot(data=College)+geom_point(mapping=aes(x=Top10perc,y=Outstate),
position="jitter")+geom_smooth(mapping=aes(x=Top10perc,y=Outstate),
method='lm', formula= y~x)
```

```
#Question 2 b
```

```
summary(lm.fit)
```

```
# Question 3 a
```

```
ggplot(data = College, mapping=aes(x=Top10perc,y=Outstate))+
  geom_point(position = "jitter", color = "red")+
  geom_smooth(method = 'lm', se = FALSE)+
  geom_segment(mapping = aes(xend = Top10perc,
yend = fitted.values(lm.fit)))
```

```
# Question 3 c-e
```

```
summary(lm.fit)
```

```
ggplot(data=College)+geom_point(mapping=aes(x=Top10perc,y=Outstate),
  position="jitter", color = 'purple')
```