```
library(fpp);

# Answer 1.A
plot(dowjones, xlab = "Time", ylab = "Value $")


# Answer 1.B
plot(rwf(dowjones, drift = TRUE, h = 20), xlab = "Time", ylab = "Value $", main = "")


# Answer 1.C
plot(rwf(dowjones, drift = TRUE, h = 20), xlab = "Time", ylab = "Value $", main = "")
slope = (tail(dowjones, 1) - head(dowjones, 1)) / (length(dowjones) - 1)
intercept = head(dowjones, 1) - slope # Since time starts from 1
abline(intercept, slope, lty = 2, col = "red")

# Answer 1.D
# "$mean" after the function calls above is used
# to extract vector of the forecasted values from the function output
plot(rwf(dowjones, drift=TRUE, h=20, level=0), xlab="Time", ylab="Value $", main="")
lines(naive(dowjones, h=20, level=0)$mean, xlab="", ylab="", main="", col="green")
lines(meanf(dowjones, h=20, level=0)$mean, xlab="", ylab="", main="", col="red")
legend("topleft",
       legend = c("Random walk with drift", "Random walk without drift", "Mean forecast"),
       col = c("blue", "green", "red"), lty=1 , cex=0.5)

# Answer 1.E
Random Walk Forecast (`rwf`) method with and without drift might be the best forecasting methods.

# Answer 2.A
bricks1 <- window(bricksq, end = 1987.99)
bricks2 <- window(bricksq, start = 1988)

# Answer 2.B
plot(bricksq)
lines(bricks1,col="red")
lines(bricks2, col="blue")

# Answer 2.C
bricks1mean <- meanf(bricks1)
bricks1naive <- naive(bricks1)
bricks1snaive <- snaive(bricks1)
bricks1drift <-rwf(bricks1,drift=TRUE)

# Answer 2.D
accuracy(bricks1mean,bricks2)
accuracy(bricks1naive,bricks2)
accuracy(bricks1snaive,bricks2)
accuracy(bricks1drift,bricks2)

# Answer 2.E
the drift.

# Answer 2.F
res<- residuals(bricks1drift)
plot(res)
hist(res, breaks="FD")


# Answer 3.A
f1<-rwf(bricksq,drift=TRUE)

# Answer 3.B
res1<- residuals(f1)
Acf(res1, main="ACF of residuals")

the seasonality.

# Answer 3.C
Box.test(res1,lag=10,fitdf = 0,type = "Lj")

the residuals are correlated.

# Answer 4.A
seasonplot(bricksq)
seasonplot(writing)
seasonplot(fancy)

monthplot(bricksq)
monthplot(writing)
```

```
monthplot(fancy)
```