

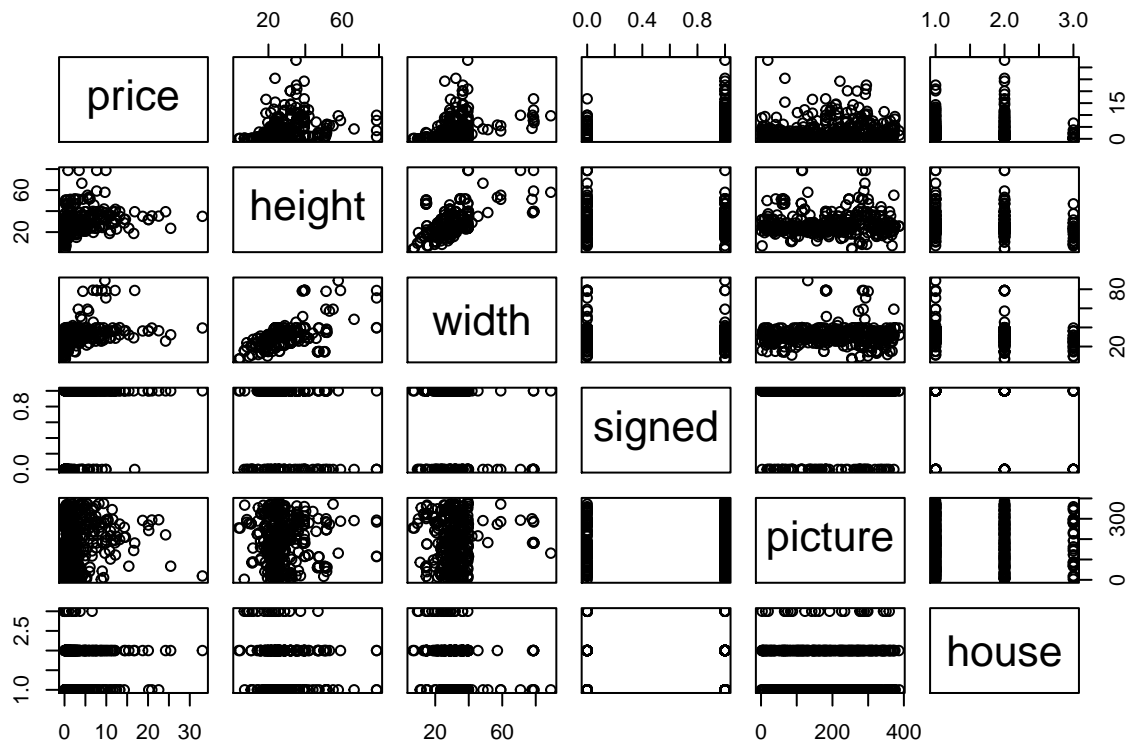
CS100 Homework 3 Part 1

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Part 1: Pricing Monet Paintings

```
pairs(monet)
```



Visually, we can see that price is most highly correlated with height and width. This is intuitive – the bigger the painting in size, the more expensive one would expect it to be. Another pair of variables that are highly correlated are height and width. We confirm this by finding their correlation coefficients below.

```
cor(monet$price, monet$height) #price and height
```

```
## [1] 0.3145808
```

```
cor(monet$price, monet$width) #price and width
```

```
## [1] 0.3468806
```

```
cor(monet$height, monet$width) # height and width
```

```
## [1] 0.5032801
```

```
monet <- monet %>%  
  mutate(size = height * width)
```

```
cor(monet$price, monet$size)
```

```
## [1] 0.3472274
```

```
plot(monet$size, monet$price)
```

