

# Hoofdstuk 18

## Bijlage 18.1

### Polynomial Model with One Predictor Variable

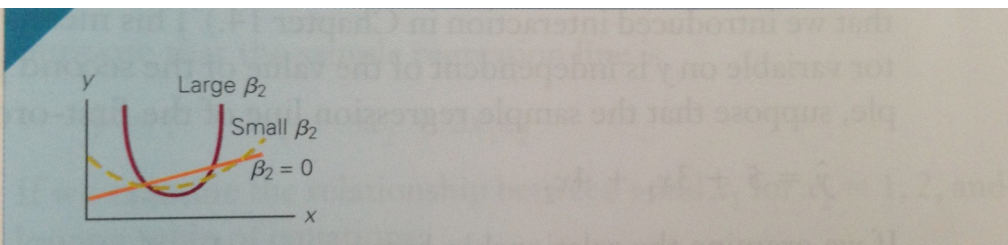
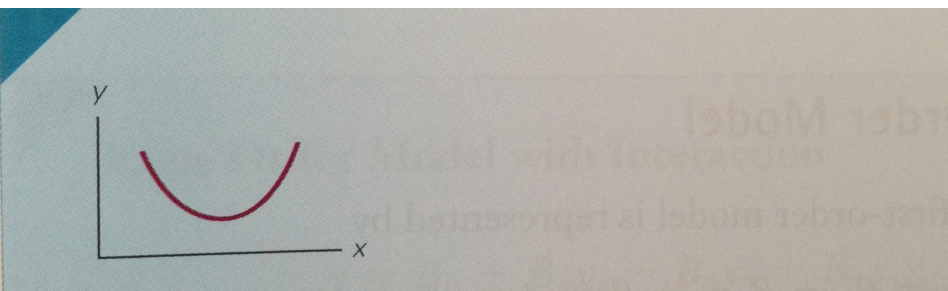
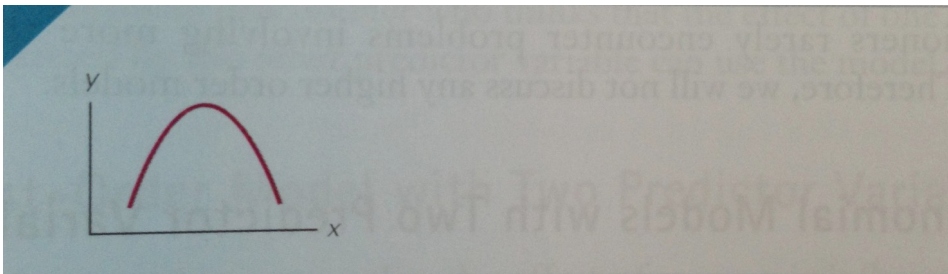
$$y = \beta_0 + \beta_1x + \beta_2x^2 + \dots + \beta_px^p + \varepsilon$$

## Bijlage 18.2

With  $p = 2$ , the polynomial model is

$$y = \beta_0 + \beta_1x + \beta_2x^2 + \varepsilon$$

## Bijlage 18.3



Bijlage 18.4

## Third-Order Model

By setting  $p = 3$ , we produce the third-order model

$$y = \beta_0 + \beta_1x + \beta_2x^2 + \beta_3x^3 + \varepsilon$$

Bijlage 18.5

## First-Order Model with Interaction

$$y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_1x_2 + \varepsilon$$

Bijlage 18.6

## Second-Order Model with Interaction

$$y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_1^2 + \beta_4x_2^2 + \beta_5x_1x_2 + \varepsilon$$

Bijlage 18.7

