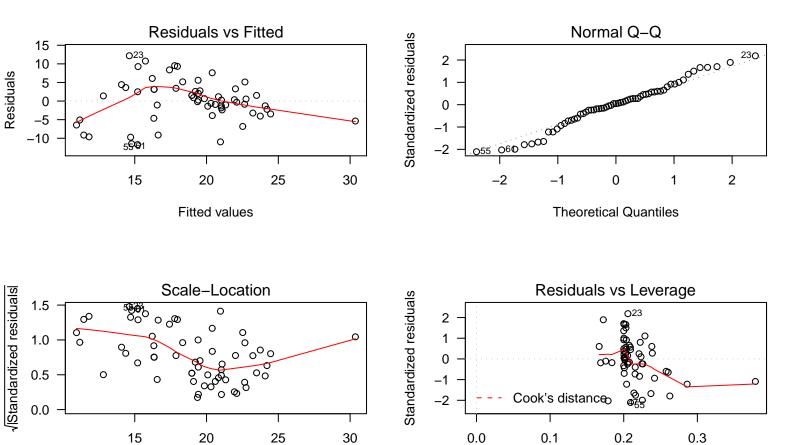Residual Diagnostics