

Adjusted R-squared R_{Adj}^2 is obtained from the (ordinary) Multiple R-squared R^2 as,

$$R_{\text{Adj}}^2 = \left(R^2 - \frac{k}{n-1} \right) \left(\frac{n-1}{n-(k+1)} \right),$$

where n is the number of observations and k is the number of independent variables.

In the first regression example (Sales vs. Advertising), we have $n = 25$, $k = 1$, so $R^2 = 0.24$, and $R_{\text{Adj}}^2 = 0.21$. (Check Rcmdr.)

Adjusted version is the preferable one, especially in multiple regression problems.

Why? Because, every time you add a new variable (even if it is not related to the problem at hand), the ordinary R^2 goes up. The adjusted one deflates the ordinary one by a suitable amount.

Note that if $R^2 = 1$, so is $R_{\text{Adj}}^2 = 1$, as it should be.