$Y = \beta_0 + \beta_1 \cdot X_1 + \beta_2 \cdot X_2 + \beta_3 \cdot X_3 + u$ (א)

$H_0: \beta_1 - 3\beta_2 = 0$ (ב)

$Var(X \pm Y) = Var(X) + Var(Y) \pm 2 \cdot Cov(X,Y)$:נוסחה לשונות

$Var(\beta_1 - 3\beta_2) = Var(\beta_1) - Var(3\beta_2) - 6 \cdot Cov(X,Y) = Var(\beta_1) - 9 \cdot Var(\beta_2) - 6 \cdot Cov(\beta_1, \beta_2)$ (כפל)

$se(\hat{\beta}_1 - 3\hat{\beta}_2) = \sqrt{Var(\hat{\beta}_1) - 9\,Var(\hat{\beta}_2) - 6\,Cov(\hat{\beta}_1, \hat{\beta}_2)}$

$$t = \frac{\hat{\beta}_1 - 3\hat{\beta}_2 - 0}{\sqrt{Var(\hat{\beta}_1) - 9\,Var(\hat{\beta}_2) - 6\,Cov(\hat{\beta}_1, \hat{\beta}_2)}}$$ (ג)

$\hat{\theta}_1 = \hat{\beta}_1 - 3\hat{\beta}_2$, $\theta_1 = \beta_1 - 3\beta_2$ (ד)

$\beta_1 = \theta_1 + 3\beta_2$

$Y = \beta_0 + \beta_1 \cdot X_1 + \beta_2 \cdot X_2 + \beta_3 \cdot X_3 + u$

$Y = \beta_0 + (\theta_1 + 3\beta_2) \cdot X_1 + \beta_2 \cdot X_2 + \beta_3 \cdot X_3 + u$

$Y = \beta_0 + \theta_1 \cdot X_1 + \beta_2 (3X_1 + X_2) + \beta_3 X_3 + u$