Figure 5.3 Equations for the calculation of the standard deviation of individual Y values around the regression line ($S_{\text{pred}}$) (used in the calculation of the prediction interval) and the standard error of $Y_{\text{fit}}$ (used in the calculation of the confidence interval). $S_{\text{res}}$ = standard deviation of the residuals, $SS_x$ = sum of squares of X.

\[
S_{\text{pred}} = S_{\text{res}} \sqrt{1 + \frac{1}{n} + \frac{(x_i - \bar{x})^2}{SS_x}}
\]

\[
se_{y_{\text{fit}}} = S_{\text{res}} \sqrt{\frac{1}{n} + \frac{(x_i - \bar{x})^2}{SS_x}}
\]
Fig. 5.4 Cardiac outputs (l/min/450 kg) as determined by simultaneous thermodilution and M-mode echocardiography, plotted with the predictive regression equation $C_{OD} = (0.63 \pm 0.157) \times C_{O_{echo}} + (16.6 \pm 3.22)$ and the 95% confidence interval.
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