



Cube Root Quick Score Formula and Calculation Procedures

Formula

$$\text{Cube Root Quick Score} = [(\text{Percent Score})^{(1/3)}] * 21.5443,$$

Where:

- Number Correct = Raw Score
- $(\text{Raw Score}/\text{Total Test Items}) * 100 = \text{"Percent Score"}$
- " $^{(1/3)}$ " is for cube root and
- "21.5443" is a constant term to make a maximum score equals to 100. The minimum score equals 0. Thus, the range of quick scores is from 0 – 100.

Note: We use four (4) decimal places for percent scores and cube root.

Procedures

Step 1: Calculate Percent Scores based on Number Correct

Step 2: Use Percent Score with four decimal places in the above formula.

Example 1

If raw score = 23 and the total number of test items = 50:

- then the percent score = 46.0000,
- the cube root of the percent score = $(46.0000^{(1/3)}) = 3.5830$, and
- the cube root quick score = $3.5830 * 21.5443 = 77.1932 = 77$.

Example 2

If raw score = 23 and the total number of test items = 64:

- then the percent score = 35.9375,
- the cube root of the percent score = $(35.9375^{(1/3)}) = 3.3000$, and
- the cube root quick score = $3.3000 * 21.5443 = 72.0962 = 72$.