Qualeffo-41
Scoring algorithm *(January 2024)*

1. All answers are standardized so that 1 represents the best and 5 (or 3, or 4) represents the worst quality of life (reverse scores on questions 33, 34, 35, 37, 39, 40).

2. Answers of questions with 3 answer options (23-26):
   -disregard "not applicable" (question 24) and "no cinema ….." (question 26)
   -in case of "not applicable" or "no cinema" it is a missing
   -score 1 →1, 2→ 3, 3 → 5.

3. Answers of questions with 4 answer options (27-28):
   -score 1 →1, 2→2.3, 3→ 3.6, 4→5.

4. Domain scores are calculated by averaging the answers of one domain and transforming the scores to a 100-score, e.g. pain questions 1-5; the average score ranges from 1 to 5 and this is transformed to scores from 0 to 100. Missing values should be disregarded. Of course, when 30% or more of the questions are not answered, the calculation of domain scores and total score becomes questionable.

   Examples: Pain
   Q1: 3, Q2: 3, Q3: 4, Q4: 1, Q5: 3. Domain score 14/5 = 2.8.
   transformed to 0-100 score: 45 (see below for formula)
   Q1: 3, Q2: 3, Q3: 4, Q4: 1, Q5: missing. Domain score 11/4 = 2.75.
   transformed to 0-100 score: 43.75
   5.The total score is calculated by summing all answers of questions 1-41. The raw total score ranges from 41 to 205 (or less when some answers are missing) and this is transformed to scores from 0 to 100.

   $$\frac{(\text{sum of scores - lowest possible score})}{\text{Total score range}} \times 100 = \text{total Qualeffo score}$$

   Examples of total score range:
   - In case of <u>no missing answers</u>
     Total score range
     205-41 = 164
   - In case of <u>1 missing answer</u>:
     Total score range
     (205-5) - (41-1) = 160
   - In case of <u>5 missing answers</u>:
     Total score range
     (205-25) - (41-5) = 144