

Calculating the raw score for scaling

Your SACE/NTCET results cannot be used directly in the selection process for university or TAFE SA courses. A mathematical process called scaling must first be used to ensure that results obtained in different subjects can be directly compared. The results must also be converted to numerical values to allow a university aggregate to be calculated.

This fact sheet explains how the raw score is calculated by looking at an example subject, Information Technology, for our SACE student Jane.

Your overall subject grade is not used to create a raw score. Instead, the A+ to E-grades for your achievements in each of the school assessed components of a subject are used, as well as the numeric result of the publicly assessed component (e.g. examination, investigation).

Raw scores are on a scale of 0 – 15.0 with a decimal place. Where a subject has a school assessed component of 70%, its contribution to the raw score is out of 10.5 (70%) and therefore the publicly assessed contribution is out of 4.5 (30%).

This example shows a typical calculation for Jane, who has studied the Stage 2 subject Information Technology.

Contribution of the school-based assessment types

As well as the final subject grade for each subject result, there are also A+ to E-grades for the individual assessment types. It is these grades that are used to create a numeric equivalent to contribute to the raw score.

Each grade level in the SACE/NTCET is ascribed a numeric equivalent value as shown in the table opposite.

SACE/NTCET grade level/numeric score comparison table

Grade	Numeric value
A+	15
A	14
A-	13
B+	12
B	11
B-	10
C+	9
C	8
C-	7
D+	6
D	5
D-	4
E+	3
E	2
E-	1
N	0



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Information Technology has three school-based assessment types:

School-based assessment (70%)

- Assessment type 1: Folio (20%)
- Assessment type 2: Skills and Applications Tasks (30%)
- Assessment type 3: Project (20%)

Jane achieves a B, a B- and a C+ for these three assessment types respectively (that she has received a final subject grade of B- is irrelevant).

The grades are converted to their numeric equivalents:

Numeric equivalents for SACE/NTCET grades			
Assessment type	1	2	3
Grade	B	B-	C+
Numeric equivalent	11	10	9

The contribution towards the raw score for each assessment type is calculated from each assessment type's contribution to the final subject grade by multiplying the numeric equivalent by the percentage:

Contribution to raw score of assessment types			
Assessment type	1	2	3
Grade	B	B-	C+
Numeric equivalent	11	10	9
Contribution of the assessment type to the final subject grade	20%	30%	20%
Contribution of individual results to the raw score	20% of 11 = 2.2	30% of 10 = 3.0	20% of 9 = 1.8

These are summed to give a raw score out of 10.5: $2.2 + 3.0 + 1.8 = 7.0$

Contribution of the publicly assessed component

Instead of A+ to E- grade for the publicly assessed component, the numeric result of the publicly assessed component is used to contribute to the raw score.

Numeric results vary from subject to subject. Some subjects have an investigation marked out of 60, others have examinations marked out of 200. Regardless of the numeric scale, results are converted to a score out of 4.5. How this is done is shown here:

Example: Investigation result of 43/60

Contribution to the raw score:

$$\begin{aligned} &= 43 \text{ (the actual result)} \times 4.5 \text{ (the max contribution)} \div 60 \text{ (the max result)} \\ &= 3.225 \end{aligned}$$

The publicly assessed contribution to the raw score often includes decimal places.

Jane's subject Information Technology has an external examination out of 200, and she has received 118/200

The contribution of this result to the raw score is:

$$\begin{aligned} &= 118 \text{ (the actual result)} \times 4.5 \text{ (the max contribution)} \div 200 \text{ (the max result)} \\ &= 2.655 \end{aligned}$$

The final raw score

The final raw score is simply the sum of the scores contributed by these two steps.

Jane's raw score is $7.0 + 2.655 = 9.655/15$.

This raw score is now used in the scaling process which will, in turn, calculate the scaled score Jane will receive for Information Technology.