



Understanding a Scaled Score

What is a scaled score?

A scaled score is the total number of correct questions (raw score) that have been converted onto a consistent and standardized scale. For CPIM exams and the SCOR-P and GLA endorsements, the converted raw passing score equals 300 on a scale of 265 to 330 and for CSCP exam the converted raw passing score equals 300 on a scale of 200 to 350. In order to better understand how a raw score is converted to a scaled score, let's look at a familiar example: Converting miles to kilometers. One mile equals 1.60934 kilometers. The length of distance has not changed, only the way in which the data is being reported. Scaled scoring is used as a best practice for reporting high stakes certification exam scores to manage the potential differences in difficulty across unique forms.

Why use scaled scoring?

In order for a fair and consistent decision to be made on exam results, scores need to be comparable, meaning that scores from different forms of a test should indicate the same level of performance no matter which exam form a test taker has received. This will also take into account the potential variability in difficulty between unique exam forms. Though test developers adhere strictly to test specifications when developing multiple exam forms that are similar in difficulty, they are rarely equal in difficulty. Furthermore, percent-correct scores do not always represent a fair comparison of different forms. For example, a test taker scoring 50% correct on a harder exam form would have more knowledge and skills than another test taker scoring 60% on an easier form. For the same reason, raw scores cannot be used, as two test takers could get the same raw score on two different forms, yet the test taker who took the more difficult form would have demonstrated a higher level of performance than the test taker who took the relatively easier form if they each got the same number of questions correct. A scaled score provides a standard range for test takers and permits direct and fair comparisons of results from one exam form to another.



How is the passing score set?

The passing score for the programs is established by the APICS Certification Committee through the cut score process. During this process, a committee of subject matter experts discuss the minimum level of competence that is required for passing the examination and obtaining the credential. After evaluating and analyzing the difficulty of each question, as well as the specific knowledge, skills and abilities that qualified practitioners possess, a raw cut score, or the passing score, is set for that particular exam form, which becomes the standard. As new test forms are created, equating procedures adjust the passing score as needed to account for any differences in form difficulty.

How are differences between test forms handled?

Test takers are assured fairness when form difficulty varies by a statistical process called equating. Equating procedures measure the difficulty of each exam form and adjust the passing score as needed so that the same level of candidate performance is reflected in the passing score regardless of the difficulty of the form. By using equating procedures, an equivalent passing standard for each form is maintained. Test takers who happen to take the slightly more difficult exam form are not penalized. Likewise, candidates who take the slightly easier exam form are not given an advantage over those who have had the slightly more difficult form.



The table below shows an example of scaled scores associated with different raw scores for two different exam forms, Form 1 and Form 2.

Raw Score	Scaled Score	
	Form 1	Form 2
100	305	305
99	304	303
98	303	301
97	302	300
96	301	299
95	300	298
Etc.	Etc.	Etc.

As you can see, Form 1 is the more difficult form because it requires less correct questions to achieve a higher scaled score. The minimum raw score required to achieve a scaled score of 300 on Form 1 (95) is not the same as the minimum raw score required for Form 2 (97). The passing score on each of these two tests, however, is reported as the same number - 300. *It is very important to note that the items and the difficulty of each of these forms are independent of each other.*