

API Test Scores *(See page 5 to determine what % you scored on an API test)*

In 2018, API started using a new grading system for the API 510/570/653 exams. With the new grading system you will NOT see exactly how many questions you got right. And you will NOT see the percentage of questions that you got correct.

1.0 API Scoring - An Equated Scoring System?

For many years API has used a Scaled system to establish the Passing Score for these API exams. Here is what the API website says,

“Scaled scores on different forms will be equivalent and interchangeable. This means that if two candidates taking different forms receive the same scaled score, the two candidates have achieved the same level of performance on the exam.”

The API committee develops 2 or 3 tests that are used for each API test. They select 125 questions for each test. It is likely that one set of 125 questions is a little bit harder, than another set of 125 questions.

For example; if you flipped a coin 125 times you might get 60 heads and 65 tails. But if you did it again, it might be 64 heads and 61 tails. Suppose heads were Harder Questions and tails were Easier Questions. It's very likely that the two tests would NOT have exactly the same DIFFICULTY !!!

Most of the questions on the exams have been used before. So API knows exactly what percentage of the past testers have selected the correct answer or selected a wrong answer. Using that information, API can use an "Equating Process" to determine the Passing Score for each exam. Different tests will be close in having equal DIFFICULTY but ... often they will NOT have exactly the same DIFFICULTY.

For example, suppose on a specific test cycle there were 3 different tests each with a bit different difficulty. API would have a different Passing Score for each test. The passing scores might be:

Hardest Difficulty Test - Passing Score:	69%
Medium Difficulty Test - Passing Score:	71%
Easiest Difficulty Test - Passing Score:	73%

But ... a 69% on the Hardest Difficulty Test is EQUIVALENT to ... a 71% on the Medium Difficulty test, and ... is EQUIVALENT to a 73% on the Easiest Difficulty Test. That's the EQUATING PROCESS.

2.0 The New Scoring System?

For many years, API provided the Tester, with the following useful information.

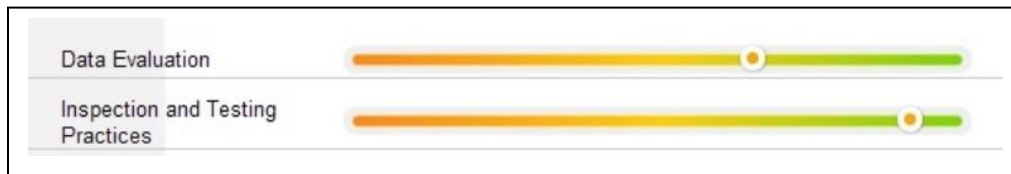
- Number of questions in each Category
- The number of questions Correct & Missed (by category & overall test)
- Percentage of Correct Answers (by category & overall test)
- The Passing Score & Passing Percentage

The new scoring does NOT provide any of the above. They only provide a Final Score, (i.e. 431) and visual on how well you did on each category. Here's an example.

Example of Final Score



Example of Category Scores



It looks like this individual did about a 70% on *Data Evaluation* and about a 90% on *Inspection and Testing Practices*. Unfortunately they do NOT show how many questions came out of each Category.

3.0 Why the New Scoring System?

I'm guessing the system saves API staff lots of phone calls from very Frustrated Inspectors. Take the passing scores in Section 1.0 above. Suppose one inspector Fails scoring a 72% (he had the Easiest Test), but his friend passes with a 70% (he had the Hardest Test). HE FAILED BUT ... SCORED 2% HIGHER than his friend!!! The API staff will get an earful, and the words like "Equating" won't help.

Using our example in Section 1.0. If someone scores a 69% on the Hardest Test, and someone else scores 71% on the Test with Medium Difficulty, and someone else scores a 73% on the Easiest Test ... they all will score a 400 on the new scoring system. No one but API staff will know that they didn't score the exact same Percentage on the Test.

4.0 New API Scoring System - Significant Numbers

Score of 200 - Lowest Possible Score
Score of 400 - Lowest Passing Score
Score of 500 - Perfect Score

5.0 How can Your Percent Scored on your Exam be Estimated?

So how do you estimate what YOU scored on the exam? Let's suppose passing is a 70%.

So if a 400 is 70% and 500 is 100%. That means a 100 point spread (500 points - 400 points) is equivalent to 30% (100% - 70%).

So every point above 400 is worth 0.3%. $30\% / 100 \text{ points} = 0.3\% \text{ per point}$

Suppose you scored 450. You are right in the middle between passing and a perfect score. If passing is 70% and perfect is 100%, then you scored 85%.

But here's a way to figure out your score.

Example #1: Score 450 & passing score is 70%

Step 1: Passing Points	400 points	Assume	70.0%
Step 2: Points above passing	50 points	50×0.3	<u>15.0%</u>
Step 3: Add Percentages		Total	85.0%

Let's do another one.

Example #2: Score 423 & passing score is 70%

Step 1: Passing Points	400 points	Assume	70.0%
Step 2: Points above passing	23 points	23×0.3	<u>6.9%</u>
Step 3: Add Percentages		Total	76.9%

Let's do one more.

Example #3: Score 476 & passing score is 70%

Step 1: Passing Points	400 points	Assume	70.0%
Step 2: Points above passing	76 points	76×0.3	<u>22.8%</u>
Step 3: Add Percentages		Total	92.8%

6.0 But ... what if Passing is NOT 70%?

It really doesn't make a big difference in your final score. Suppose passing is a 73%.

Now a 400 is 73% and 500 is 100%. That means a 100 point spread (500 points - 400 points) is equivalent to 27% (100% - 73%).

So every point above 400 is worth about 0.27%. $27\% / 100 \text{ points} = 0.27\% \text{ per point}$

We'll work the same examples as in Section 5:

Example #1: Score 450 & passing score is 73% (Different by +1.5%)

Step 1: Passing Points	400 points	Assume	73.0%
Step 2: Points above passing	50 points	50×0.27	<u>13.5%</u>
Step 3: Add Percentages		Total	86.5%

Let's do another one.

Example #2: Score 423 & passing is 73% (Different by +2.3%)

Step 1: Passing Points	400 points	Assume	73.0%
Step 2: Points above passing	23 points	23×0.27	<u>6.2%</u>
Step 3: Add Percentages		Total	79.2%

Let's do one more.

Example #3: Score 476 & passing is 73% (Different by 0.7%)

Step 1: Passing Points	400 points	Assume	73.0%
Step 2: Points above passing	76 points	76×0.27	<u>20.5%</u>
Step 3: Add Percentages		Total	93.5%

7.0 Estimating the Percent You Scored on the API Exam?

You can determine a percentage range that YOU scored on an API exam.

A. If passing is 70%: List Your Test Score _____

Step 1: Passing Points	400 points	Assume	70%
Step 2: List Points above passing	_____ points	___ X 0.3	_____%
Step 3: Add Percentages		Total %	_____%

B. If passing is 73%: List Your Test Score _____

Step 1: Passing Points	400 points	Assume	73%
Step 2: List Points above passing	_____ points	___ X 0.27	_____%
Step 3: Add Percentages		Total %	_____%

Your percentage scored on the test will be somewhere between the numbers derived above in Step 3.

Another way to check your Percentage Scored is to use the Table below.

Your Score	If 70% Passes	If 73% Passes
400	70%	73%
410	73%	75.7%
420	76%	78.4%
430	79%	81.1%
440	82%	83.8%
450	85%	86.5%
460	88%	89.2%
470	91%	91.9%
480	94%	94.6%
490	97%	97.3%
500	100%	100%

8.0 But What if you did NOT Pass?

So how do you estimate what YOU scored on the exam? Let's suppose passing is a 70%.

Example #1: Score 380 & passing score is 70%

Step 1: Passing Points	400 points	Assume	70%
Step 2: Points below passing	20 points	20×0.3	<u>-6%</u>
Step 3: Subtract Step 2 from Step 1		Total	64%

If you did NOT pass you can figure your score below.

If passing is 70%: List Your Test Score _____

Step 1: Passing Points	400 points	Assume	70%
Step 2: List Points below passing	_____ points	_____ X 0.3	_____%
Step 3: Subtract Step 2 from Step 1		Total %	_____%

Another way to check your Percentage Scored is to use the Table below.

Your Score	If 70% Passes	If 73% Passes
350	55%	59.5%
355	56.5%	60.9%
360	58%	62.2%
365	59.5%	63.6%
370	61%	64.9%
375	62.5%	66.3%
380	64%	67.6%
385	65.5%	69.0%
390	67%	70.3%
395	68.5%	71.2%
400	70%	73%