Answers and Scoring

The answer key is given as follows. Note that the answers are the same regardless of whether you attempted Section A or Section B for Questions #33-40.

1b	2a	3e	4b	5c	6d	7a	8c	9d	10e
11b	12b	13a	14d	15c	16c	17d	18e	19c	20e
21e	22a	23c	24a	25e	26e	27d	28d	29a	30a
31d	32d	33e	34d	35d	36b	37a	38d	39b	40c

Add up your correct answers for all 40 questions. Your score: _____ out of 40

Recommendations:

If you scored 31 or more points, you are likely ready for Calculus. However, you will want to review any areas of weakness that arose while you were working on this test, especially if you scored on the lower side of this range. Refer to the resources section for some review suggestions.

If you scored between 20 and 30 points, you should only consider enrolling in Calculus if you are able to review relevant PreCalculus material. Refer to the resources section for some review suggestions. If you do not feel comfortable doing this on your own, you should consider enrolling in PreCalculus Math 102.

If you scored less than 20 points, you will likely have a very difficult time with the material in a Calculus course. You should instead enrol in PreCalculus Math 102.

Note: While your score on this test is a good indication of how well you might do in a Calculus class, it is of course not a guarantee of either your success or failure.

Resources

1. Google Terms

The following is a list of relevant terms for each of the 40 questions in this diagnostic test. If you had difficulties with specific questions, you may wish to google the given term below to look for useful resources, including online examples, YouTube videos, and more.

1. Google: “fraction arithmetic”
2. Google: “simplify algebraic expressions involving fractions”
3. Google: “simplify algebraic expressions involving exponents”
4. Google: “exponent arithmetic”
5. Google: “factoring trinomials”
6. Google: “factoring trinomials”
7. Google: “quadratic formula”
8. Google: ”solving equations involving absolute values”
9. Google: “solving inequalities involving absolute values”
10. Google: “solving quadratic inequalities”
11. Google: “solving two linear equations”
12. Google: “simplify algebraic expressions involving complex fractions”
13. Google: “simplify algebraic expressions involving common denominators”
14. Google: “exponent arithmetic”
15. Google: “difference of squares”
16. Google: “solving rational equations”
17. Google: “evaluating functions”
18. Google: “function composition examples”
19. Google: “equation of a line”
20. Google: “equation of a parabola”
21. Google: “equation of a line through two points”
22. Google: “equation of a perpendicular line”
23. Google: “finding the vertex of a parabola”
24. Google: “intersection of line and parabola example”
25. Google: “intersection of two parabolas”
26. Google: “working with percentages”
27. Google: “shared work word problems”
28. Google: “distance speed time problems”
29. Google: “linear cost function examples”
30. Google: “area of triangles”
31. Google: “distance between two points”
32. Google: “area of squares and circles”

Section A – Exponents and Logarithms

33. Google: “finding the base of a logarithm”
34. Google: “evaluating basic logarithms”
35. Google: “log laws”
36. Google: “solving exponential equations”
37. Google: “base-e exponent laws”
38. Google: “solving exponential equations”
39. Google: “solving logarithmic equations with log laws”
40. Google: “evaluating basic logarithms”

Section B – Basic Trigonometry

33. Google: “convert radians to degrees”
34. Google: “trigonometry of right triangles”
35. Google: “trigonometry with angles larger than pi”
36. Google: “trigonometry of right triangles”
37. Google: “trigonometry of right triangles tangent”
38. Google: “trigonometric functions”
39. Google: “intersect of sine and cosine”
40. Google: “trigonometric identities”

2. Text Resources

If you require more in-depth review (and have elected not to enrol in Math 102), you should also consider working through a PreCalculus text.

The following are online open text (i.e. free) resources:

- Precalculus, 3rd Edition: http://www.stitz-zeager.com/
- Precalculus: An Investigation of Functions: http://www.opentextbookstore.com/precalc/

The following are relatively inexpensive PreCalculus books that can be ordered through online booksellers (such as Amazon).

- Just-in-Time Algebra and Trigonometry for Calculus, by Mueller, Brent
- Schaum’s Outline of PreCalculus, by Safier