

Part I:

(#1-25) Multiple-Choice—Choose the best answer from the choices provided on the exam. On this review, there will be no choices so you will have to find the answer.

#1-5: Identify the amplitude of the function.

1. $y = 2\sin(3x) + 7$
2. $y = -4\cos(2x + 3) - 5$
3. $y = 3.7 \sin(\pi x - 1) + 3$
4. $y = -2\csc(5x) + 4$
5. $y = 3 + 2\sec(6x + 4)$

#6-12: Identify the period of the function.

6. $y = 2\sin(3x) + 7$
7. $y = -4\cos(2x + 3) - 5$
8. $y = 3.7 \sin(\pi x - 1) + 3$
9. $y = -2\csc(5x) + 4$
10. $y = 3 + 2\sec(6x + 4)$
11. $y = 5\tan(x) + 1$
12. $y = -2\cot(x/5) + 8$

#13-17: Identify the “sea-level” (vertical shift) of the function.

13. $y = 2\sin(3x) + 7$
14. $y = -2\cot(x/5) + 8$
15. $y = -4\cos(2x + 3) - 5$
16. $y = -2\csc(5x) + 4$
17. $y = 3 + 2\sec(6x + 4)$

#18-25: Given information about a function, choose the correct equation for the trigonometric function.

18. A sine graph with an amplitude of 4 and a period of 2.
19. A sine graph with a sea-level of -4, an amplitude of 6, and a period of $1/2$.
20. A cosine graph with a sea-level of 3, an amplitude of $1/4$, and a period of 6π .
21. A cosine graph with a sea-level of -5, an amplitude of 3, and a period of $\pi/4$.
22. A sine graph with an amplitude of 2 and a period of 12π .
23. A secant graph with an amplitude of 10 and a sea-level of 2.
24. A cosecant graph with an amplitude of 3, a period of 3, and a sea-level of -3.
25. A tangent graph with an amplitude of 6, a period of 2π , and a sea-level of 4.5.

Part II:

(#26-31) Free-Response—Sketch each graph for two full periods. Identify the amplitude, period, and sea-level for each graph. For #31 and 31, identify the vertical asymptotes as well.

26. $y = 2 \sin(2\pi x) + 3$
27. $y = -\cos(4x) - 2$
28. $y = -5 \csc(x/3) + 2$
29. $y = \sec(3x) + 1$
30. $y = \tan(3x) + 2$
31. $y = 2\cot(x) - 4$