

Math Analysis CP - Final Exam Review - Semester 1

- | | | | |
|--------|-------|--|--|
| ① B | 26. B | 51. C | 74. $-\frac{1}{3} + \frac{\sqrt{15}}{6}$ |
| ② B | 27. C | 52. D | 75. $\csc x$ |
| ③ B | 28. A | 53. C | 76. $\tan x$ |
| ④ A | 29. D | 54. A | 77. $\frac{2\pi}{3}, \frac{4\pi}{3}$ |
| ⑤ C | 30. B | 55. A | 78. $x = 0, \pi, \frac{3\pi}{4}, \frac{7\pi}{4}$ |
| ⑥ A | 31. C | 56. $\langle 22, -16 \rangle$ | 79. $x = \frac{\pi}{2}, \frac{3\pi}{2}$ |
| ⑦ skip | 32. D | 57. $\langle -21i, -16j \rangle$ | 80. $x = \frac{\pi}{6}, \frac{11\pi}{6}$ |
| ⑧ C | 33. A | 58. $\sqrt{17}, 104^\circ$ | 81. $\frac{1}{2}$ |
| ⑨ A | 34. C | 59. $4(\cos \frac{2\pi}{3} + i \sin \frac{2\pi}{3})$ | 82. $\theta = 102.8^\circ$ |
| ⑩ C | 35. C | 60. $-\frac{5}{2}i$ | 83. a) $\frac{1}{2}$ c) $-\pi$ |
| ⑪ B | 36. D | 61. $2.427 + 1.764i$ | b) $\frac{2\pi}{3}$ d) -3 |
| ⑫ D | 37. C | 62. $\langle -12, 13 \rangle$ | 84. a) $\frac{1}{2}$ b) $\frac{3\pi}{2}$ |
| ⑬ A | 38. A | 63. $C = 91^\circ, c = 99.4, a = 63.9$ | c) 2π |
| ⑭ B | 39. A | 64. $A = 37.7^\circ, B = 66.5^\circ, C = 75.8^\circ$ | |
| ⑮ A | 40. A | 65. 363.5 | 85. $y = 2\sin(2(x + \frac{1}{8}\pi)) + 3$ |
| ⑯ B | 41. D | 66. $r = 9$ | 86. $t = \frac{\pi}{3}, \frac{2\pi}{3}$ |
| ⑰ skip | 42. C | 67. \leftrightarrow | 87. $14\csc \theta$ |
| ⑱ A | 43. B | 68. $x = \frac{\pi}{2}, \frac{3\pi}{2}, \frac{7\pi}{6}, \frac{11\pi}{6}$ | 88. $\frac{1}{\tan \theta}$ |
| ⑳ A | 44. A | 69. $3\sin x - 4\sin^3 x$ | 89. 315° |
| ㉑ D | 45. B | 70. $\tan x$ | 90. $\sqrt{3}$ |
| ㉒ B | 46. B | 71. (see work) | 91. $\frac{12}{5}$ |
| ㉓ A | 47. C | 72. (see work) | 92. $A = 28.07^\circ$ |
| ㉔ A | 48. B | 73. $\sin 9$ | 93. $x = 7.31 \text{ ft}$ |
| ㉕ A | 49. D | | |
| | 50. D | | |

- | | | | |
|--|--|--------------------------------------|----------------------------------|
| 94. $32^\circ, -688^\circ$ | 97. $B = 55^\circ, b = 18.57, c = 22.66$ | 99. $10, 12i$ | 103. $\pm \frac{3i\sqrt{14}}{7}$ |
| 95. 1.1504 | 98. $\sin A = a/c, \csc A = c/a$ | 100. $x = -\frac{4}{5}, \frac{3}{5}$ | 104. (see work) |
| 96. $\csc P = \frac{17}{8}, \sec P = \frac{17}{15}, \cot P = \frac{15}{8}$ | | 101. $64 + 47i$ | 105. $f(x) = x^2$ |
| | | 102. $f(x) = x^3 - 5x^2 + 19x + 25$ | |