

**MATH 1100 Semester Review
Answer Section****MULTIPLE CHOICE**

- | | |
|------------|--------|
| 1. ANS: E | PTS: 1 |
| 2. ANS: C | PTS: 1 |
| 3. ANS: C | PTS: 1 |
| 4. ANS: B | PTS: 1 |
| 5. ANS: E | PTS: 1 |
| 6. ANS: A | PTS: 1 |
| 7. ANS: A | PTS: 1 |
| 8. ANS: D | PTS: 1 |
| 9. ANS: E | PTS: 1 |
| 10. ANS: C | PTS: 1 |

NUMERIC RESPONSE

- | | |
|-------------|--------|
| 11. ANS: 13 | |
| | PTS: 1 |
| 12. ANS: 2 | |
| | PTS: 1 |
| 13. ANS: 1 | |
| | PTS: 1 |
| 14. ANS: -6 | |
| | PTS: 1 |
| 15. ANS: -8 | |
| | PTS: 1 |
| 16. ANS: 12 | |
| | PTS: 1 |
| 17. ANS: -3 | |
| | PTS: 1 |
| 18. ANS: 7 | |
| | PTS: 1 |
| 19. ANS: 4 | |
| | PTS: 1 |

MATCHING

20. ANS: A PTS: 1
 21. ANS: B PTS: 1
 22. ANS: A PTS: 1
 23. ANS: B PTS: 1

SHORT ANSWER

24. ANS:
 $-\sqrt{7}, -\pi, \sqrt{17}$

PTS: 1

25. ANS:

$$x = -\frac{3}{2}$$

PTS: 1

26. ANS:
 $9.00 = 0.40n + 1.80$

PTS: 1

27. ANS:

$$v = \frac{h + 16t^2}{t}$$

PTS: 1

28. ANS:

$$y = \frac{1}{2} \cdot x + 5$$

PTS: 1

29. ANS:
 11,849; 1,810

PTS: 1

30. ANS:
 \$4,800; \$3,200

PTS: 1

31. ANS:
 37; 46

PTS: 1

32. ANS:
 $|x-5| \leq 3$

PTS: 1

33. ANS:
 $a = \frac{8}{5}, \frac{22}{5}$

PTS: 1

34. ANS:
 \emptyset

PTS: 1

35. ANS:
 $t = \frac{7}{3}, -1$

PTS: 1

36. ANS:
 $a = 2, -3$

PTS: 1

37. ANS:
 $-\frac{3}{2}$

PTS: 1

38. ANS:
 $y = -4x - 2$

PTS: 1

39. ANS:
 $y = -\frac{1}{5} \cdot x$

PTS: 1

40. ANS:
 $y - x = 4$

PTS: 1

41. ANS:
 $y = 4x + 9$

PTS: 1

42. ANS:

$$y = -\frac{2}{7} \cdot x + 2$$

PTS: 1

43. ANS:

52

PTS: 1

44. ANS:

$$f(a) = 3a^2 - 12$$

PTS: 1

45. ANS:

(8, 2)

PTS: 1

46. ANS:

500; 350

PTS: 1

47. ANS:

$$\left(-2, \frac{1}{3}\right)$$

PTS: 1

48. ANS:

(3, 2)

PTS: 1

49. ANS:

6; 3

PTS: 1

50. ANS:

$$x^4 \cdot y^{12}$$

PTS: 1

51. ANS:

$$4.5 \times 10^{-6}$$

PTS: 1

52. ANS:

$$10a^2 - 8a \cdot b + 17b^2$$

PTS: 1

53. ANS:

$$20x^2 - 9x \cdot y - 20y^2$$

PTS: 1

54. ANS:

$$x^3 + \frac{3}{4} \cdot x^2 + \frac{3}{16} \cdot x + \frac{1}{64}$$

PTS: 1

55. ANS:

$$8x^2 \cdot y^2 \cdot (x^2 + 5x \cdot y - 6y^2)$$

PTS: 1

56. ANS:

$$10r \cdot (3r - 2)^2$$

PTS: 1

57. ANS:

$$(7x + 6) \cdot (x - 2)$$

PTS: 1

58. ANS:

$$\left(5a + \frac{1}{5}\right)^2$$

PTS: 1

59. ANS:

$$\left(4a - \frac{1}{4}\right) \cdot \left(4a + \frac{1}{4}\right)$$

PTS: 1

60. ANS:

$$\left(r - \frac{2}{5}\right) \cdot \left(r + \frac{2}{5}\right)$$

PTS: 1

61. ANS:

$$\left(\frac{1}{9} + \frac{y^2}{4}\right) \cdot \left(\frac{1}{3} + \frac{y}{2}\right) \cdot \left(\frac{1}{3} - \frac{y}{2}\right)$$

PTS: 1

62. ANS:
 $(x+5) \cdot (x-1)$

PTS: 1

63. ANS:
 $3(r+5) \cdot (r^2 - 5r + 25)$

PTS: 1

64. ANS:
 $(x-6) \cdot (x^2 + 6x + 36)$

PTS: 1

65. ANS:
 $(4-r) \cdot (16 + 4r + r^2)$

PTS: 1

66. ANS:
 $x = 0, x = -2$

PTS: 1

67. ANS:
 $0, -2, -3$

PTS: 1

68. ANS:
 $\$4, \13

PTS: 1

69. ANS:
 $t \neq -3, t \neq 3$

PTS: 1

70. ANS:
 $(a^2 + 9) \cdot (a + 3)$

PTS: 1

71. ANS:
 -3

PTS: 1

72. ANS:
 $x^2 - 5x + 25$

PTS: 1

73. ANS:

$$\frac{1}{3}$$

PTS: 1

74. ANS:

$$\frac{(a-2) \cdot (a+2)}{a-6}$$

PTS: 1

75. ANS:

$$\frac{1}{2}$$

PTS: 1

76. ANS:

$$\frac{x-1}{2(x-2)}$$

PTS: 1

77. ANS:

$$\frac{8x^2 + 5x - 6}{8x + 5}$$

PTS: 1

78. ANS:

$$\frac{t-1}{t-7}$$

PTS: 1

79. ANS:

$$\frac{8y+x}{y+8x}$$

PTS: 1

80. ANS:

$$-3, 6$$

PTS: 1

81. ANS:

$$\frac{a \cdot b}{a-b}$$

PTS: 1

82. ANS:

$$5a^5$$

PTS: 1

83. ANS:

$$4x \cdot \sqrt{3x}$$

PTS: 1

84. ANS:

$$\frac{3\sqrt{5}}{5}$$

PTS: 1

85. ANS:

$$x^{\frac{4}{9}} - 3x^{\frac{2}{9}} - 28$$

PTS: 1

86. ANS:

$$t + 4t^{\frac{1}{2}} + 4$$

PTS: 1

87. ANS:

$$-20x \cdot \sqrt{2}$$

PTS: 1

88. ANS:

$$36a^2 \cdot b \cdot \sqrt{5a}$$

PTS: 1

89. ANS:

$$242 - 38\sqrt{35}$$

PTS: 1

90. ANS:

$$\emptyset$$

PTS: 1

91. ANS:

$$2, 3$$

PTS: 1

92. ANS:

$$-4i \cdot \sqrt{3}$$

PTS: 1

93. ANS:

$$3 - 23i$$

PTS: 1

94. ANS:

$$3, 6$$

PTS: 1

95. ANS:

$$y = \frac{\sqrt{2}}{3}, y = -\frac{\sqrt{2}}{3}$$

PTS: 1

96. ANS:

$$x = 4i \cdot \sqrt{7}, x = -4i \cdot \sqrt{7}$$

PTS: 1

97. ANS:

$$25; 5$$

PTS: 1

98. ANS:

$$-3, 5$$

PTS: 1

99. ANS:

$$a = 5 + 2i, a = 5 - 2i$$

PTS: 1

100. ANS:

$$x = 3 \pm 2i$$

PTS: 1

101. ANS:

$$r = \frac{3 + \sqrt{13}}{4}, \frac{3 - \sqrt{13}}{4}$$

PTS: 1

102. ANS:

$$0, \frac{-1-i\sqrt{79}}{8}, \frac{-1+i\sqrt{79}}{8}$$

PTS: 1

103. ANS:

$$p \cdot \sqrt{2}$$

PTS: 1