

Chapter 01: Math Review
Mulholland: The Nurse, The Math, The Meds, 3rd Edition

ESSAY

1. Label states for children ≥ 8 years of age, give 10 mL of medication. Write out the meaning of the symbol.

ANS:
greater than or equal to

2. For children with a fever $< 39^\circ \text{C}$, give 1 chewable Tylenol tablet. Write out the meaning of the symbol.

ANS:
less than

3. Hold the medication for a pulse *less than* 50. Write the symbol for the italicized words.

ANS:
<

4. Write the whole number 10 as a fraction. Do not change the value.

ANS:
 $\frac{10}{1}$

5. Edit 90.400 to remove the trailing zeroes.

ANS:
90.4

6. Write 9 as whole number. Indicate the *implied* decimal place with a decimal point.

ANS:
9.

7. Write the whole number 100 as a fraction that equals 1.

ANS:
 $\frac{100}{100}$

8. Write the sum of 9 and 7.

ANS:
16

9. Write the product of 8 and 5.

ANS:
40

10. Write three factors of the number 12, other than the number 1.

ANS:
3, 4, 6

11. Write four common factors of the number 12 and 24, other than the number 1.

ANS:
3, 4, 6, 12

12. Write the product of 9 and 5.

ANS:
45

13. Write four multiples of the number 4.

ANS:
4, 8, 12, 16

14. Which number is the multiplier in $8 \times \frac{1}{2}$?

ANS:
 $\frac{1}{2}$

15. Write out 2^5 to illustrate how it would be calculated. Include the result.

ANS:
 $2 \times 2 \times 2 \times 2 \times 2 = 32$

16. Write the square of 6.

ANS:
36

17. Write the square root of 25.

ANS:
5

18. Which number is the base in 10^4 ?

ANS:
10

19. Which number is the exponent in 5^6 ?

ANS:

6

20. Write 3 divided by 4 as a fraction.

ANS:

$\frac{3}{4}$

21. Label the numerator and denominator of $\frac{5}{6}$.

ANS:

$\frac{5}{6} = \frac{\text{numerator}}{\text{denominator}}$

22. If six packages of syringes sell for \$240, what is the unit value of one package?

ANS:

\$40

23. Write out 0.125 as it would be spoken aloud.

ANS:

one hundred twenty five thousandths

24. Which is larger: 0.07 or 0.008?

ANS:

0.07

25. Divide 293.5 by 10 by moving the decimal place.

ANS:

$293.5 \rightarrow 29.35$

26. Multiply 84.9 by 100 by moving the decimal place.

ANS:

$84.9 \rightarrow 8490$

27. Round 8.326 to the nearest hundredth.

ANS:

8.33

28. Round 2.67 to the nearest tenth.

ANS:
2.7

29. Round 89.28 to the nearest whole number.

ANS:
89

30. $\frac{1}{8} \div \frac{1}{4} = \underline{\hspace{2cm}}$.

ANS:
 $\frac{1}{8} \times \frac{4}{1} = \frac{4}{8} = \frac{1}{2}$

31. Change 0.04 to a fraction.

ANS:
 $\frac{4}{100}$

32. Change $\frac{50}{100}$ to a decimal.

ANS:
 $\frac{50}{100} = \frac{1}{2} = 0.5$

33. Multiply 0.12×10 .

ANS:
1.2

34. Divide 25 by 0.5.

ANS:
50

35. Which is greater: $\frac{3}{4}$ or $\frac{2}{3}$?

ANS:
 $\frac{3}{4}$

36. Which is smaller: $\frac{1}{8}$ or $\frac{1}{10}$?

ANS:
 $\frac{1}{10}$

37. Write $\frac{2}{3}$ as a percentage.

ANS:

$66\frac{2}{3}\%$

38. Change the improper fraction $\frac{6}{3}$ to a mixed number.

ANS:

$1\frac{1}{3}$

39. Change the mixed number $2\frac{3}{4}$ to an improper fraction.

ANS:

$11/4$

40. Find the lowest common denominator for $\frac{1}{2} + \frac{3}{4} + \frac{1}{12}$.

ANS:

12

41. Write two equivalent fractions for $\frac{3}{4}$.

ANS:

$\frac{6}{8}$ and $\frac{9}{12}$

42. Which is greater: 0.25 or 0.5?

ANS:

0.5

43. Which is smaller: 2.13 or 0.8998?

ANS:

0.8998

44. Find the greatest common factor of the numerator and denominator in $\frac{12}{36}$.

ANS:

12

45. Reduce the fraction $\frac{50}{75}$ to lowest terms.

ANS:

$\frac{2}{3}$

46. Add the following fractions: $\frac{1}{4} + \frac{1}{3}$.

ANS:

$$\frac{5}{20} + \frac{4}{20} = \frac{9}{20}$$

47. Subtract: $\frac{1}{2} - \frac{1}{6}$.

ANS:

$$\frac{3}{6} - \frac{1}{6} = \frac{2}{6} = \frac{1}{3}$$

48. Multiply: $\frac{2}{3} \times \frac{3}{4}$ (use cancellation).

ANS:

$$\frac{2^1}{1^3} \times \frac{3^1}{2^4} = \frac{1}{2}$$

49. Multiply: $\frac{3}{8} \times \frac{2}{9}$ (use cancellation).

ANS:

$$\frac{3^1}{4^8} \times \frac{2^1}{3^9} = \frac{1}{12}$$

50. Divide: $\frac{1}{8} \div \frac{1}{4}$.

ANS:

$$\frac{1}{8} \div \frac{1}{4} = \frac{1}{8} \times \frac{4}{1} = \frac{4}{8} = \frac{1}{2}$$

51. For children <5 years of age, give 2 mg of medication. Write out the meaning of the symbol.

ANS:

less than

52. For children with a fever $\geq 100^\circ$ F, administer one children's chewable Tylenol tablet. Write out the meaning of the symbol.

ANS:

greater than or equal to

53. Hold the medication for a systolic blood pressure *less than* 100/60. Write the symbol for the italicized phrase.

ANS:

<

54. Write the whole number 2 as a fraction. Do not change the value.

ANS:

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

55. Edit 7.000 to remove the trailing zeroes.

ANS:

$$7.000 \rightarrow 7$$

56. Write 3 as a whole number. Indicate the implied decimal place with a decimal point.

ANS:

3

57. Write the whole number 50 as a fraction that equals 1.

ANS:

$$\frac{50}{50} = 1$$

58. Write the Arabic numerals for XV.

ANS:

15

59. Write the Roman numeral for 10.

ANS:

X

60. Write the sum of 5 and 3.

ANS:

8

61. Write the product of 8 and 7.

ANS:

56

62. Write three factors of the number 15 other than the number 1.

ANS:

3, 5, 15

63. Write three common factors of 30 and 45 other than the number 1.

ANS:

3, 5, 15

64. Write the product of 2 and 6.

ANS:
12

65. Write four multiples of the number 5.

ANS:
5 (×1), 10 (×2), 15 (×3), 20 (×4)

66. Which number is the multiplier in $7 \times \frac{3}{4}$?

ANS:
 $\frac{3}{4}$

67. Write out 4^3 to illustrate how it would be calculated. Include the result.

ANS:
 $4 \times 4 \times 4 = 64$

68. Write the square of 5.

ANS:
 $5^2 = 25$

69. Write the square root of 9.

ANS:
 $\sqrt{9} = 3$

70. Which number is the base in 3^7 ?

ANS:
3

71. Which number is the exponent in 5^2 ?

ANS:
2

72. Write 2 *divided by* 5 as a fraction.

ANS:
 $\frac{2}{5}$

73. Label the numerator and denominator of $\frac{3}{4}$.

ANS:

$\frac{3}{4}$ numerator
denominator

74. If five cartons sell for \$50, what is the unit value of a carton?

ANS:

$\frac{50}{5} = \$10$ per carton

75. Write out 0.072 as it would be spoken aloud.

ANS:

Seventy two thousandths

76. Which is larger: 0.089 or 0.08?

ANS:

0.089

77. Divide 374.4 by 10 by moving the decimal place.

ANS:

37.44 (move the decimal one place to the left)

78. Multiply 6.02 by 100 by moving the decimal place.

ANS:

602 (move the decimal two places to the right)

79. Round 6.735 to the nearest hundredth.

ANS:

6.74

80. Round 0.273 to the nearest tenth.

ANS:

0.3

81. Round 29.09 to the nearest whole number.

ANS:

29

82. $\frac{1}{4} + 1\frac{1}{3} = \underline{\hspace{2cm}}$.

ANS:

$$\frac{1}{4} \div \frac{6}{5} = \frac{1}{4} \times \frac{5}{6} = \frac{5}{24}$$

83. Change 0.13 to a fraction.

ANS:

$$\frac{13}{100}$$

84. Change $\frac{25}{100}$ to a decimal.

ANS:

0.25

85. Multiply: 0.05×10 .

ANS:

0.5 (move the decimal one place to the right)

86. Divide: $150 \div 0.75$.

ANS:

200

$$\begin{array}{r} 200 \\ 0.75 \overline{) 150.00} \\ \underline{-150} \\ 0 \end{array}$$

87. Which is greater: $\frac{3}{5}$ or $\frac{2}{3}$?

ANS:

$\frac{2}{3} = 0.666$, which is greater than $\frac{3}{5}$ (0.6)

88. Which is smaller: $\frac{1}{20}$ or $\frac{1}{18}$?

ANS:

$$\frac{1}{20}$$

89. Write $\frac{7}{8}$ as a percentage.

ANS:

$$8 \overline{) 7.00} = 87\frac{1}{2}\%$$

90. Change the improper fraction $\frac{7}{3}$ to a mixed number.

ANS:

$$2\frac{1}{3}$$

91. Change the mixed number $2\frac{3}{4}$ to an improper fraction.

ANS:

$$\frac{11}{4}$$

92. Find the least common denominator for $\frac{1}{15} + \frac{2}{3} + \frac{4}{3}$.

ANS:

15

93. Write two equivalent fractions for $\frac{2}{3}$.

ANS:

$$\frac{4}{6}, \frac{6}{9}$$

94. Which is greater: 0.5 or 0.35?

ANS:

0.5

95. Which is smaller: 1.230 or 0.9999?

ANS:

0.9999

96. Find the greatest common factor of the numerator and denominator in $\frac{15}{75}$.

ANS:

15

97. Reduce the fraction $\frac{100}{250}$ to lowest terms.

ANS:

$$\frac{100}{250} = \frac{2}{5}$$

98. Add the following fractions: $\frac{2}{3}$, $\frac{4}{9}$, and $\frac{1}{2}$.

ANS:

$$\frac{12}{18} + \frac{8}{18} + \frac{9}{18} = \frac{29}{18} = 1\frac{11}{18}$$

99. Subtract: $\frac{1}{4} - \frac{1}{12}$.

ANS:

$$\frac{1}{4} = \frac{3}{12}$$
$$\frac{3}{12} - \frac{1}{12} = \frac{2}{12} = \frac{1}{6}$$

100. Multiply: $\frac{5}{12} \times 2\frac{2}{3}$

ANS:

$$\frac{5}{12} \times \frac{14}{3} = 1$$