
Math 050 Study Guide

Name: _____

This study guide represents the type of questions that are on the final but is not meant to be all-inclusive. Students will need to review **ALL** the content presented in the course.

Chapter 1

Exercises 12-14: Evaluate the expression.

1. $14 - 15 \div 3 + 6$ 1. _____

2. $\frac{(4+2) \cdot 3}{20 - 2 \cdot 7}$ 2. _____

3. $32 - (2 \cdot 5 - (6^2 \div 3) + 7)$ 3. _____

Exercises 18 and 19: Simplify the algebraic expression.

4. $7x + (2x + 3)$ 4. _____

5. $2y + 7 + y + 4$ 5. _____

Chapter 2

6. Evaluate $x - y$ for $x = -2$ and $y = 5$. 6. _____

7. Evaluate -12^2 . 7. _____

8. Simplify the expression $-\sqrt{64}$. 8. _____

Evaluate the expression.

9. $6 + 9^2 \div 3 - 27$ 9. _____

10. $\sqrt{-11 + 47} - (-7)$ 10. _____

11. $\frac{(-4 - 7) \cdot 4}{3^2 - \sqrt{25}}$ 11. _____

Evaluate the expression.

12. $13 - |6^2 \div (-12)|$ 12. _____

13. $\frac{(-3-9) \cdot 2}{2^2 + \sqrt{16}}$ 13. _____

14. Is -6 a solution to $\frac{-12}{y+2} = 3$? 14. _____

Solve the equation.

15. $65 = -13x$ 15. _____

16. $-\sqrt{y} = -4$ 16. _____

Chapter 3

Simplify the expression.

17. $2(x+3) - 4(3x-1)$ 17. _____

18. $5z - (z-7) + 8$ 18. _____

19. $(-t-8) - (3t-4)$ 19. _____

Solve the equation.

20. $23 = x - 17$ 20. _____

21. $7a = 6a - 14$ 21. _____

22. $3n = -36$ 22. _____

23. $\frac{m}{5} = -15$ 23. _____

24. $-3(x-4) = -2x - 16 + 3x$ 24. _____

25. When the sum of 6 and a number is divided by -2 , the result is 5. Find the value of the unknown number. 25. _____

26. The length of a rectangle is 3 inches longer than the width. If the perimeter of the rectangle is 42 inches, find the measures of the length and width. 26. _____

Chapter 6

27. Write the ratio $4 : 24$ as a fraction in simplest form. 27. _____

28. A train travels 33 miles in 20 minutes. Write this rate as a unit rate. 28. _____

29. A 20-ounce box of cereal sells for \$3.90. Find the unit price of the cereal. 29. _____

Solve the proportion.

30. $\frac{-15}{x} = \frac{-3}{5}$ 30. _____

31. $\frac{7}{10} = \frac{w}{-\frac{5}{14}}$ 31. _____

Convert the measurement as indicated.

32. 21.5 feet to inches 32. _____

33. $5\frac{1}{4}$ gallons to pints 33. _____

34. 3800 milligrams to dekagrams 34. _____

35. 2700 feet to kilometers 35. _____

36. Use a formula to convert 25°C to Fahrenheit. 36. _____

37. If the label on a 3.4-quart bottle of milk states that the serving size is 220 milliliters, how many full servings are in the bottle?

37. _____

Find the unit price for each size option.

38. Large box of cereal: 24 ounces for \$3.60
Small box of cereal: 16 ounces for \$2.80

38. _____

Which is the better buy?

Chapter 7

Write the given percent as a fraction or mixed number in simplest form.

39. 35%

39. _____

40. 340%

40. _____

Write the given fraction or decimal as a percent.

41. $\frac{17}{40}$

41. _____

Exercises 9 and 10: Use a proportion to find the unknown value.

42. 33 out of 60 is what percent?

42. _____

43. 12.5% of what number is 75?

43. _____

44. Find the simple interest when \$2700 is borrowed for 4 months at 3.2% interest.

44. _____

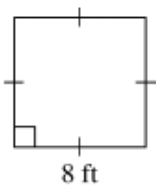
45. A stereo system on clearance is marked at 40% off. If the regular price is \$319, find the discount and the sale price.

45. _____

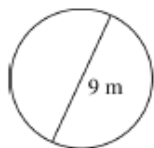
Chapter 8

46. Find the area of the polygon.

46. _____



47. Find the approximate area of the circle, using 3.14 for π . Round your answer to the nearest tenth.



47. _____

48. For the circle shown, do the following.

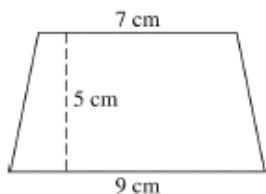


- (a) Find the exact circumference of the circle.
- (b) Approximate the circumference, using 3.14 for π . Round answer to the nearest tenth.

48. (a) _____

(b) _____

49. Find the area of the polygon.



49. _____

50. Find the area of the polygon.



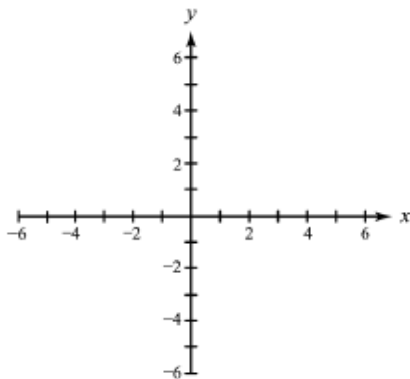
50. _____

Chapter 10

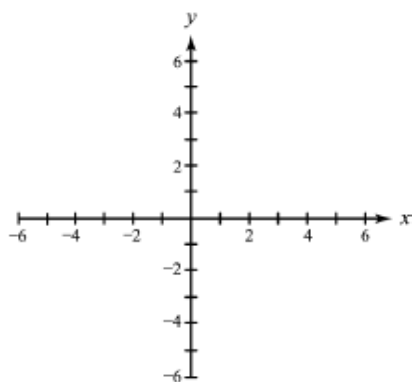
51. Determine whether the ordered pair $(-2, -1)$ is a solution for the equation $y = 5 + 2x$.

51. _____

52. Sketch a line passing through the point $(-2, 1)$ and having slope 1.



53. Graph the equation $x - 3y = 12$.



54. Write the equation $6x - 2y = 5$ in slope-intercept form. Give the slope and the y-intercept.

54. _____

55. Write the equation of a vertical line passing through the point $(\frac{1}{2}, -\frac{3}{4})$.

55. _____

56. Find the slope of a line passing through the points $(\frac{1}{2}, -2)$ and $(0, -3)$.

56. _____

57. Find the slope-intercept form for the line with slope $-\frac{2}{3}$ and y-intercept 4.

57. _____

58. Find the slope-intercept form of the line parallel to $y = 3 - 4x$, passing through $(\frac{1}{2}, 1)$.

58. _____

59. Find the slope-intercept form of the line perpendicular to $y = -\frac{3}{5}x - 2$, passing through $(6, -2)$.

59. _____

60. Complete the table for the equation $3x + 2y = 6$.

60.

x	-1	0	1	2	3
y	$\frac{9}{2}$				

Chapter 12

Simplify.

61. $(-2x+5)-(4x+7)$

61. _____

62. $(2x^3 - 4x^2 + x - 1) - (-3x^3 + 7x + 5)$

62. _____

63. $(2x^2y - 4x^2) + (8x^2 - 5x^2y)$

63. _____

Evaluate.

64. $\left(-\frac{2}{5}\right)^0$

64. _____

65. $(-2)^{-3}$

65. _____

Write the expression with positive exponents.

66. $-2x^8 \cdot 3x^{-4}$

66. _____

67. $(a^{-2}b^3)^{-2}$

67. _____

68. $\frac{6ab^2}{3a^2b^3}$

68. _____

69. $\frac{1}{4}x^2(12x-8)$

69. _____

70. $(2x-5)(x+7)$

70. _____

71. $(3x^2+4)(3x^2-4)$

71. _____

72. $(2+3x)^2$

72. _____

73. Write 2.6×10^{-5} in standard form.

73. _____

Chapter 13

Factor completely.

74. $ax + az - bx - bz$

75. $2x^3 - x^2 + 10x - 5$

76. $12a^3 - 75a$

77. $x^2 - 2x - 24$

78. $x^2 - 25$

79. $4x^4 + 8x^2 - 12$
