

MATH 015 – SAMPLE FINAL EXAM

SHOW ALL OF YOUR WORK, CHECK YOUR ANSWERS & BE CAREFUL OF SIGNS!

Add, subtract, multiply or divide: 1 point each

1. $-16 + 7 =$

2. $15 - 27 =$

3. $-0.05(.18) =$

4. $0 - (27) =$

5. $\frac{42}{0} =$

6. $-14(-22x) =$

7. $\left(-\frac{7}{15}\right)\left(\frac{25}{42}\right) =$

8. $-\frac{5}{9} - \frac{2}{3} =$

9. $\frac{-65}{13} =$

10. $\frac{3}{7} - 2 =$

Add, subtract, multiply or divide: 2 points each

11. $-23 + 19 - 17 + 12 =$

12. $\left(2\frac{1}{7}\right)\left(4\frac{2}{3}\right) =$

13. $2\frac{1}{7} + 4\frac{2}{3} =$

14. $3.28 \div 1.6 =$

15. $-\frac{5}{16} \div \frac{1}{20} =$

16. $\frac{-2}{\frac{8}{11}} =$

17. Write these numbers in words. (2 points each)

a. 30,208,047

b. 2,038.403

18. Write these numbers in digits. (1 point each)

a. Three thousand four hundred and twenty-seven thousandths.

b. Four million three hundred five thousand seven hundred two.

Simplify each of the following expressions. (2 points each)

19. $3^3 - 4(5)^2 =$

20. $13 - 7(27 - 19) + 36 =$

21. $|8 - 19| + (-2)^3 =$

22. $5(3x - 7) - 14x + 24 =$

23. $-12h^2 + 7h - 8h^2 + 15h =$

24. $\frac{5}{7} - \frac{3}{7}(15 - 13)^2 + \frac{4}{9} =$

25. $\frac{7}{10} \cdot \frac{5}{14} \div \frac{3}{8} =$

26. $\frac{-.42}{1.4} + 6.137 =$

27. Round each number as indicated: (2 points each)

a. 9,684.7356 to the nearest hundred

b. 3,654.2432 to the nearest thousandth.

28. **Evaluate** $3s^2 - 2t$ when $s = 4$ and $t = -5$.

29. **Evaluate** $\frac{s}{t}$ when $s = -1\frac{7}{18}$ and $t = \frac{5}{6}$

30. What is 75% of 88?

31. **Put the following numbers in order from least to greatest.**

$8\frac{5}{7}, 8.72, 8.714$

32. **Evaluate** xyz when $x = \frac{4}{7}$, $y = -\frac{9}{11}$, and $z = -\frac{22}{27}$

33. Change 52% to a fraction in lowest terms.

34.	Solve the proportion: $\frac{1\frac{1}{2}}{x} = \frac{\frac{3}{5}}{6}$
35.	Write $\frac{21}{50}$ as a percent.
36.	Write 8.9 % as a decimal.
37.	Write an equation that has the solution $x = \frac{1}{3}$?
38.	Find the cost of a \$6,500 used car if the price is reduced 15%.
39.	The sum of fourteen and a number is three times the number. Find the number.
40.	What percent of 450 is 9?
41.	The first quarter of 2001, Cyber Technologies had a \$10,000 loss. For the second quarter, the company had a \$25,000 profit. What was the company's overall profit or loss at the end of the second quarter?
Solve each of the following for the unknown variable: (2 points each)	
42.	$x + 24 = 13$
43.	$4x - 9 = 35$
44.	$3(2x - 5) = 5x - 11$
45.	$2.7x = .81$
46.	$x - \frac{3}{8} = \frac{1}{4}$
47.	$\frac{5}{6}x = -\frac{2}{3}$
Each of the following is worth 3 points (Make sure that you show all of your work!)	
48.	A two foot piece of ribbon is cut into two pieces. If the short piece is six inches shorter than the long piece, then what is the length of the two pieces?
49.	The new 8-mile nature trail is 125% of the length of the original trail. How long was the original trail?
50.	A school has a student to teacher ratio of 35 to 2. If the school has 875 students, how many teachers does it have?
51.	The Pine Ridge Country Club maintains putting greens with a grass height of $\frac{3}{4}$ inch. The grass on the fairways is maintained at $1\frac{1}{3}$ inches. How much must the blade be lowered by a person mowing the fairways if that person will be using the same mowing machine on the greens?