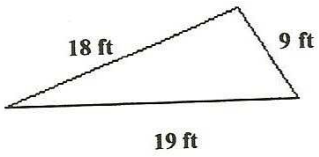
MAT0012C
Practice Test for Final

NO CALCULATOR, PLEASE

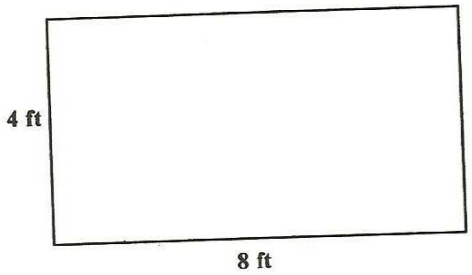
1.



What is the perimeter of the triangle?

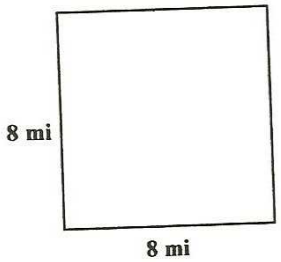
a) 46 ft^2 b) 46 ft c) 85.5 ft d) 37 ft

2. What is the area of the rectangle below?



a) 32 ft^2 b) 32 ft c) 24 ft^2 d) 24 ft

3. What is the area of the square below?



a) 64 mi b) 32 mi^2 c) 32 mi d) 64 mi^2

4. What is the volume of a rectangular solid that measures 18 ft long by 10 ft high by 13 ft wide?

a) 1690 ft^3 b) 1800 ft^3 c) 2340 ft^3 d) 4212 ft^3

5. Use order of operations to simplify. $3 \cdot 3 + 9(7 - 3) + 8$

a) 77 b) 117 c) 152 d) 53

6. Use order of operations to simplify. $(2^2 - 1) \div (-2^2 + 1)$

a) 1 b) - 1 c) $-\frac{5}{3}$ d) $\frac{3}{5}$

7. Use order of operations to simplify. $9^2 \div (-3) + 2[18 - (3 \cdot 2)]$

a) 51 b) -3 c) -15 d) 18

8. Simplify. $-|-57|$

a) 0 b) 57 c) undefined d) -57

9. Simplify. $20 - |8 - 11| \cdot 7$

a) -1 b) 153 c) 41 d) -113

10. Simplify. $-|-9| - |-12 - 6|$

a) -27 b) 9 c) 27 d) -9

11. Simplify. $-2m^6 + 12m^4 - 9m^2 + 14m^6 - 10m^4$

a) $12m^6 + 22m^4 - 9m^2$ b) $228m$

c) $12m^6 + 2m^4 - 9m^2$ d) $19m^{12}$

12. Simplify. $\frac{19}{64} + \frac{11}{64}a + \frac{17}{64} + \frac{7}{64}a$

a) $\frac{9}{32}a + \frac{9}{16}$ b) $\frac{77}{64}a + \frac{323}{64}$ c) $\frac{13}{32}a + \frac{7}{16}$ d) $\frac{11}{64}a + \frac{9}{16}$

13. Simplify. $6.1x + 8.4x$

a) $14.5x$ b) $29x$ c) $51.24x$ d) $14.5x^2$

14. Evaluate the following expression for $x = -2$. $5x^2 - 7x - 7$

a) 27 b) -3 c) 23 d) 17

15. Evaluate the following expression for $x = -\frac{1}{3}$. $-3x^3 + 2x + 2$

a) $\frac{7}{3}$ b) $\frac{25}{9}$ c) $\frac{13}{9}$ d) $-\frac{11}{9}$

16. Evaluate the following expression , for $v = 25.9$ and $t = 3.4$. $vt - 16t^2$

a) -96.2 b) 33.66 c) 273.02 d) -96.9

17. Solve for x: $5(x + 5) = 4x + 25$

a) 20 b) 0 c) -20 d) 1

18. Solve for x: $5x + 7(-2x - 7) = -50 - 8x$

a) 1 b) $\frac{99}{17}$ c) 99 d) -1

19. Solve for r: $\frac{1}{5}(r + 6) = \frac{1}{7}(r + 8)$

a) -2 b) 2 c) 1 d) -1

20. Solve for x: $\frac{2}{5}x - \frac{1}{3}x = 2$

a) -30 b) 30 c) -60 d) 60

21. Solve for x: $0.5x - 0.3(20 + x) = 0.1(20)$

a) 30 b) 40 c) 20 d) 50

22. Solve for x: $-0.4(20) + 0.5x = 0.3(20 + x)$

a) 70 b) 35 c) 60 d) 80

23. Find the value of B in the formula $V = \frac{1}{3}Bh$ when $V = 27$ and $h = 3$

a) 27 b) 81 c) 9 d) 30

24. A kitchen table costs $550. The sales tax is $27.50. If " r" represents the sales tax rate, translate this problem into an algebraic equation.

a) $27.5r = 550$ b) $550r = 27.5$ c) $550(27.5) = r$ d) $550 - 27.5 = r$

25. Jason is paid a commission of 4% of his sales. Last month his commission totaled $780. If "s" represents Jason's monthly sales, translate this problem into an algebraic equation.

a) $0.04(780) = s$ b) $0.4 = 780s$ c) $0.4s = 780$ d) $0.04s = 780$

26. David's company has to ship 3300 boxes of sprinklers. Using "B" to represent the number of boxes a truck can hold, translate this problem into an algebraic expression that will give the total number of trucks needed.

a) $\frac{3300}{B}$ b) $3300B$ c) $3300 + B$ d) $3300 - B$

27. Multiply. $-8x^4(-12x^3 + 11)$

a) $96x^7 + 88x^4$ b) $96x^7 + 11$ c) $96x^7 - 88x^4$ d) $-96x^7 + 88x^4$

28. Multiply. $11a(10a^2 - 6a + 8)$

a) $110a^3 - 6a + 8$

b) $121a^4$

c) $110a^3 - 66a^2 + 88$

d) $110a^3 - 66a^2 + 88a$

29. Multiply. $2a^3(-12a^7 - 7a)$

a) $-24a^7 - 14a$

b) $-24a^{10} - 7a^4$

c) $-24a^{10} - 7a$

d) $-24a^{10} - 14a^4$

30. Multiply. $(x + 1)(-3x - 8)$

a) $-3x^2 - 11x - 11$

b) $-3x^2 - 11x - 8$

c) $-3x^2 - 8x - 11$

d) $-3x^2 - 13x - 8$

31. Multiply. $\left(x - \frac{5}{4}\right)\left(x + \frac{4}{5}\right)$

a) $x^2 - \frac{9}{20}x - 1$

b) $x^2 - \frac{16}{25}x$

c) $x^2 - \frac{1}{5}x - 1$

d) $x^2 - 1$

32. Multiply. $(0.4x + 9)(0.1x + 9)$

a) $0.04x^2 + 4.5x + 33$

b) $0.4x^2 + 3.3x + 81$

c) $0.04x^2 + 4.5x + 81$

d) $0.4x^2 + 8.1x + 45$

33. Simplify. $(7 + 9n^6 + 4n^5) + (3n^6 - 7n^5 + 5)$

a) $12n^6 - 3n^5 + 12$

b) $21n^{11}$

c) $12n^6 + 2n^5 + 9$

d) $12 - 3n^6 + 12n^5$

34. Simplify. $(-5n + 8n^5 - 19n^2) - (7n^2 + 4n^5 - 2n)$

a) $4n^5 - 26n^2 - 7n$

b) $-25n^8$

c) $4n^5 - 26n^2 - 3n$

d) $4n^5 - 15n^2 - 7n$

35. Simplify. $\left(\frac{11}{11}x^4 + \frac{1}{5}\right) - \left(\frac{6}{11}x^4 + \frac{1}{6}x^2\right) + \left(\frac{2}{3}x^2 + \frac{1}{5}\right)$

a) $\frac{5}{11}x^4 + \frac{1}{2}x^2$

b) $\frac{5}{11}x^4 + \frac{1}{2}x^2 + \frac{2}{5}$

c) $\frac{5}{11}x^4 + \frac{5}{6}x^2$

d) $\frac{5}{11}x^4 + \frac{5}{6}x^2 + \frac{2}{5}$

1. b
2. a
3. d
4. c
5. d
6. b
7. b
8. d
9. a
10. a
11. c
12. a
13. a
14. a
15. c
16. d
17. b
18. a
19. d
20. b
21. b
22. a
23. a
24. b
25. d
26. a
27. c
28. d
29. d
30. b
31. a
32. c
33. a
34. c
35. b d