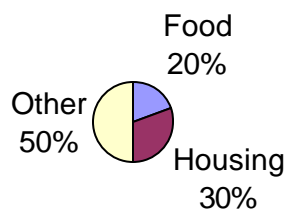


MATD 0370 ELEMENTARY ALGEBRA REVIEW FOR TEST 1 (COVERS 1.1-1.3 and 2.1-2.3)

1. Evaluate (find the value of): $18 \cdot 3^3 + 6 \div 2$
2. Evaluate: $(12^2 - 2 \cdot 6 \div 2 + 4) \cdot 2$
3. Evaluate: $-[3 - (-5 - 2)]^2$
4. Evaluate $(3m + 4p)^2$ for $m = -4$ and $p = -2$
5. Evaluate $(x - 1)^2 + 3xy^2 - 9$ for $x = 3$ and $y = -2$
6. Combine like terms: $xy^3 - (-3xy^3)$
7. Solve for x: $6x + 2 = x + 1$
8. Solve for y: $-5y + \frac{1}{8} - 3y - \frac{5}{8} = \frac{1}{8}$
9. Solve for a: $4.2a - 0.5 = 1.4a + 13.5$
10. Solve for m: $4m - 13 = 19$
11. Solve for w: $-w - 5(w - 2) = 12 + 2w$
12. Solve for x: $\frac{5}{6}x = 15$
13. The sum of three consecutive odd integers is 123. What are the numbers?
14. A triangle has a perimeter of 52 inches. Find the three sides if one side is 17 inches longer than the smallest and the third side is three times the smallest.
15. Solve for y: $8x - 7y = 3$
16. The circle graph below represents a family's monthly budget. If the total monthly income is \$2000,



how much is spent on food?

17. 320 is what percent of 80?

18. Ron wants to buy a used car and needs to have a down payment of 15%. If the car Ron wants to buy costs \$5700, how much down payment will he need?

19. If the perimeter of a rectangle is 280 feet and the length is 40 feet more than the width, what are the dimensions of the rectangle?

20. Evaluate: $-5^2 - (-6)^2 - (-4)^3 - |-7|$

21. Evaluate $-a^4 - b^2$ when $a = 2$ and $b = -9$

22. Solve for m: $\frac{1}{2} + \frac{3}{4}m = 2m + \frac{2}{3}$

23. Solve for y: $2.7y + 4 - 5.31y = 2.593 - 0.6y$

24. Simplify: $8(5 - x) - 30 - 2(x - 3)$

25. The formula for volume of a cone is $V = \frac{1}{3}\pi r^2 h$, where V is the volume of the cone, r is the radius of the cone, and h is its height. Solve the formula for h.

26. The sum of two numbers is 21. Twice the smaller plus five times the larger is 84. Find the numbers.

27. A garden has an area of 851 ft^2 and a length of 37 ft. How many feet of fencing will you need to enclose the garden?

28. Multiply $6(3y-9)$

29. Solve $I = prt$ for $t = ?$ when $I = \$75.30$, $r = 3\%$, $p = \$502$

30. Solve for x: $3x + 7 = 6x - 4$

31. Evaluate: $x^2 - y^2 - z^2$ if $x = -5$, $y = 6$, and $z = -4$

32. Simplify $6y - 4(y+3) + (y-4)$

33. Simplify $10xy^5 - (-7xy^5)$

34. If a department store is selling towels for \$8.08 on sale after a 15% markdown, how much did the towels cost *before* the sale?

Also, be *sure* you work the problems from the additional handouts for this test (one over 1.1 and one over 2.3).

ANSWERS:

1. 489

2. 284

3. -100

4. 400

5. 31

6. $4xy^3$

7. $-\frac{1}{5}$

8. $-\frac{5}{64}$

9. 5

10. 8

11. $-\frac{1}{4}$

12. 18

13. 39, 41, and 43

14. 7 in., 24 in., and 21 in.

15. $y = \frac{8x-3}{7}$

16. \$400

17. 400%

18. \$855

19. 50 ft by 90 ft

20. -4

21. -97

22. $-\frac{2}{15}$

23. 0.7

24. $-10x + 16$

25. $h = \frac{3V}{\pi^2}$

26. 7 and 14

27. 120 ft

28. $18y - 54$

29. $t = 5$

30. $x = \frac{11}{3}$

31. -27

32. $3y - 16$

33. $17xy^5$

34. \$9.50 (or \$9.51)