MATH 1136 QUIZ 4

Please write your name at the top of this page.
Write your solutions on this page, but bring your work – neatly written – to discuss in class.

Solve the following equations.

1. $\frac{2}{3}(x+6) = 3x - \frac{1}{4}$
2. $2y - 4 = y + 5$
3. $3 - 2z = z + 1$
4. $2 + w = \frac{3}{4}w + 1$
5. $3 - 2v = \frac{1}{2}(v-2) + \frac{1}{4}$
6. $\frac{4}{5}(s-2) = \frac{1}{4}s - 3$
7. $2t - \frac{t}{2} = 1$
8. $\frac{2p}{3} + \frac{1}{4} = p + 2$
9. $\frac{3}{4}(2q+1) = 2q + \frac{1}{2}$
10. $2a - b = 3$ and

    $a + b = 1$
11. $x + y = 15$ and

    $x - 2y = 3$
12. $z + w = -8$ and

    $z - 4w = 1$
13. $2s - \frac{1}{3}t = 8$ and

    $\frac{2}{3}(s+t) - s = 3$
14. $p - q = 3$ and

    $q + 2r = 12$ and

    $p + q + r = 6$
15. $\frac{1}{2}(h+k) = \frac{4}{3}j$ and

    $k + 2h = \frac{17}{2} - 2j$ and

    $4j + h = 8$

Date: 2017-02-10.

Answer the questions in the following stories.

16. A candy bowl has 723 candies. Some of the candies are red, and the rest are green. There are twice as many green candies as red candies. How many of each color candies are in the bowl?

17. Sarah spends $\frac{2}{5}$ of her monthly income on rent. Sarah's rent is \$750. What is Sarah's monthly income?

18. After Joey spent $\frac{3}{8}$ of his money on an electronic game player, he had \$360 left. How much money did Joey have before he bought the electronic game player? How much did the electronic game player cost?

19. Katie made some chololate truffles. She gave $\frac{1}{4}$ of her truffles to Leanne, and then gave $\frac{1}{2}$ of the remaining truffles to Jeff. At that point, Katie had 18 truffles left. How many chocolate truffles did she have at first? How many did Leanne and Jeff each get?

20. Shauntay caught twice as many fireflies as Robert. Jessica caught 10 more fireflies than Robert. All together, Shauntay, Robert, and Jessica caught 150 fireflies. How many fireflies did each person catch?

21. Julie bought donuts for a party: $\frac{1}{6}$ of the donuts were jelly donuts; $\frac{1}{3}$ of the donuts were cinnamon donuts; and $\frac{5}{6}$ of the remainder were glazed donuts. The rest were chocolate. Julie bought 20 glazed donuts. How many donuts did Julie buy in all? How many of each type?