***Practice Problems***

1. Add or subtract, simplify if possible:

 (a)  (b)  (c)  (d) 

 (e)  (f)  (g)  (h) 

 (i)  (j)  (k)  (l) 

2. Sarah needs to make a cake and some cookies. The cake requires  cup of sugar and the cookies require  cup of sugar. Sarah has  cup of sugar, does she have enough sugar? If not, how much more does she need?

3. Multiply. Mark your simplifications. Rewrite the problem before you begin to simplify.

 (a)  (b)  (c)  (d)  (e) 

 (f)  (g)  (h)  (i) 

4. Add or Subtract as indicated. Give your answer in simplest form.

 (a)  (b)  (c)  (d) 

 (e)  (f)  (g)  (h) 

5. On a map,  inch represents 15 miles. The distance between two rivers on the map is  inches. How many miles are actually between the two rivers?

6. At the beginning of an experiment, a plant is 3 inches tall. Each week it grows another three-quarters of an inch. After 12 weeks, how tall is the plant?

7. A Lego block is  of an inch long. If 7 of these blocks are snapped together in a line to form a wall in a Lego city, how long will the resulting wall be?

8. Jessica had $75. She spent of it at the mall and of the remainder on groceries. How much does she have left?

9. . If this represents the situation in which there are cups of oatmeal ready to serve and you want to serve each person of a cup of oatmeal, what does the 6 represent?

10. Divide. Write all answers in simplest form.

 (a)  (b)  (c)  (d) 

11. A gasoline can holds  liter. How much will the can hold when it is  full?

12. Do the indicated arithmetic. Show all your work and give your final answer in simplest form.

 (a)  (b)  (c)  (d) 

 (e)  (f)  (g)  (h) 

13. It takes  yard of ribbon to make a bow. How much ribbon is needed to make 5 bows.

14. A landscaper uses  pound of peat moss for a rosebush. How much will be needed for 21 rosebushes?

15. A recipe calls for  cups of chocolate chips. If I want to make half a recipe, how many cups of chocolate chips do I need?

16. How much salmon will be needed to serve 30 people if each person gets  pound?

17. A rancher owns a square mile of land. He gives  of it to his daughter and she in turn gives  of her share to her son. How much land goes to the son (the rancher’s grandson)?

18. A standard pencil is  inches long. If 25 pencils are arranged end-to-end, how long is the line of pencils?

19. Mary has  cups of yogurt. Each tart requires  cup of yogurt. How many tarts can she make?

20. A resort hotel uses  of its extra land for recreational purposes. Of that,  is used for swimming pools. What part of the extra land is used for swimming pools?

21. Do the following as fraction arithmetic. Write all answers in simplest form.

 (a)  (b)  (c) 

 (d)  (e)  (f) 

22. A family has an annual income of $27,000. Of this  is spent for food,  for housing,  for clothing,  for savings,  for taxes, and the rest for other expenses.

 (a) What fractional part is spent for other expenses?

 (b) What dollar amount is this?

23. The weight of water is  pounds per cubic foot. How many cubic feet would be occupied by pounds of water?

24. Kim ate five-twelfths of a pizza and Pat ate four-ninths of it.

 (a) What part of the pizza did they eat together?

 (b) How much of the pizza is remaining?

25. Jan has five and three-eighths yards of material. She needs three and five-sixths yards to make outfits for her and her daughter. How much material will she have left after making the outfits?

26. In training for a marathon, Dana keeps an accurate record of the training miles ran each week. One week, Dana ran fifteen and a half miles on Sunday, six and two-thirds miles on Monday, twelve and three-eighths miles on Tuesday, five and five-sixths miles on Wednesday, nine and one-fourth miles on Thursday, two and five-eighths miles on Friday, and six and two-tenths miles on Saturday. How many miles did Dana run that week?

27. Three-fourths of a pan of brownies was sitting on the kitchen table. Jerry and Terry ate two-thirds of that partial pan of brownies.

 (a) What portion of a pan of brownies did they eat?

 (b) How much of the pan of brownies is remaining?

28. Lynn is making dresses for her wedding. She assumes that it will take one-sixth as much material to make a dress for the flower girl as that needed for a bridesmaid. If the dress pattern requires three and three-fourths yards of material to make a dress for a bridesmaid, how much material must Lynn buy to make dresses for a flower girl and four bridesmaids?

29. You need to lay tile across a wall. Each side of a square tile measures two and five-eighths inches. If the wall is thirty-five inches wide, how many pieces of tile are needed?

30. The directions for a herbicide recommend mixing two and two-thirds ounces of concentrate for every gallon of water.

 (a) How much herbicide concentrate is needed to mix with one-fourth of a gallon of water?

(b) How many gallons of mixture can be made if the bottle of herbicide concentrate contains thirty-two and a half ounces?

31. Add or subtract, simplify if possible:

 (a)  (b)  (c) 

 (d)  (e)  (f) 

32. You need  cup of water for a recipe. You accidentally put cup of water into the mixing bowl with the dry ingredients. How much more water do you need to add?

33. Multiply.

 (a)  (b)  (c)  (d)  (e) 

 (f)  (g)  (h)  (i) 

34. Add or Subtract as indicated. Give your answer in simplest form.

 (a)  (b)  (c)  (d) 

 (e)  (f)  (g)  (h) 

35. A scale on a map states that every  inch represents 20 miles. If two cities are  inches apart, how many miles are actually between the two cities?

36. How many  cup size sugar bowls can be filled from 16 cups of sugar?

37. A cake recipe calls for  cup sugar. If the only measuring cup available is an  cup, how many of these will have to be filled with sugar to fulfill the recipe

38. A recipe calls for  cups of flour. How much flour is needed if you want to quadruple the recipe?

39. Do the arithmetic. Show your work. Give your final answer in simplest form.

 (a)  (b)  (c)  (d) 

 (e)  (f)  (g)  (h) 

 40. If  teaspoon is equal to 1 milliliter (ml), then how many milliliters are in 6 teaspoons?

41. If each piece of pie is  of a pie, how much of the pie is of a piece?

42. A gasoline can holds  liter. How much will the can hold when it is  full?

43. Harry needs to stack 36 pieces of lumber. Each piece is  of an inch high. If he stacks all 36 pieces in one stack, how tall will the stack be?

44. How many test tubes, each containing  ml, can a nursing student fill from a container of 60 ml?

45. Compute

(a)  (b)  (c) 

 (d)  (e)  (f) 

 (g)  (h)  (i)  (j) 

 (k)  (l)  (m)  (n) 

46. A resort hotel uses  of its extra land for recreational purposes. Of that,  is used for swimming pools. What part of the land is used for swimming pools?

47. A recipe calls for  cup cornmeal. A chef is making  of the recipe. How much cornmeal should the chef use?