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Unit 1 Study Guide: Number Sense Fluency

Vocabulary:
1. <u>Algorithm</u>: a step-by-step solution to a problem.
2. <u>Difference</u>: The amount left after one number is subtracted from another number.
3. <u>Distributive Property</u>: The sum of two addends multiplied by a number is the sum of the product of each addend and the number.
4. <u>Dividend</u>: A number that is divided by another number.
5. <u>Divisor</u>: A number by which another number is to be divided.
6. <u>Factor</u>: When two or more integers are multiplied, each number is a factor of the product. "To factor" means to write the number or term as a product of its factors.
7. <u>Greatest Common Factor</u>: The largest factor that two or more numbers have in common.
8. <u>Least Common Multiple</u>: The smallest multiple (other than zero) that two or more numbers have in common.
9. <u>Minuend</u>: The number that is to be subtracted from.
10. <u>Multiple</u>: The product of a given whole number and an integer.
11. <u>Quotient</u>: A number that is the result of division.
12. <u>Reciprocal</u>: Two numbers whose product is 1.
13. <u>Sum</u>: The number you get by adding two or more numbers together
14. <u>Subtrahend</u>: The number that is to be subtracted.
15. <u>Product</u>: A number that is the result of multiplication.
16. <u>Fraction</u>: A way of representing a part of a whole or a part of a group by telling the number of equal parts in the whole and the number of parts you are describing.
17. <u>Mixed   number</u>: A number with a whole number and a fractional part.
18. <u>Improper fraction</u>: A fraction with a numerator greater than its denominator.

Part A: Decimals
☐ I have completed Section A and checked my answers on Weebly.
☐ I can add, subtract, multiply, and divide decimals and apply these concepts to real-life word problems with confidence.
☐ I need help with understanding Section A.

19. $1.34 \times 4.5 =$ 20. $6.78 - 0.549$ 21. $345.78 + 2.992$

22. $49.5621 \div 0.07$ 23. 52.03×0.21 24. $981.18 \div 0.009$

25. The Muller family checks two suitcases at the airport. The weight of the larger suitcase is 44.8 pounds. The weight of the smaller suitcase is 31.336 pounds. What is the combined weight of the two suitcases?

26. A quart of blueberries costs $4.95. A quart of organic blueberries costs $5.65. How much more expensive is the quart of organic blueberries?

27. Francis ran the 100-meter dash in 11.2 seconds. It took Sam 1.25 times that long to run it. How long did it take Sam to run the 100-meter dash?

28. Strawberries are on sale for $2.25 per pound. Nancy bought a bag of strawberries for $9.25. How many pounds of strawberries did Nancy buy?

29. L.B. Johnson Middle School held a track and field event during the school year. Miguel took part in a four-person shot put team. Shot put is a track and field event where athletes throw (or "put") a heavy sphere, called a "shot," as far as possible. To determine a team score, the distances of all team members are added. The team with the greatest score wins first place. The current winning team's final score at the shot put is 52.08 ft. Miguel's teammates threw the shot put the following distances: 12.26 ft., 12.82 ft., and 13.75 ft. Exactly how many feet will Miguel need to throw the shot put in order to tie the current first place score? Show your work.

30. Jerod is making candles from beeswax. He has 132.72 ounces of beeswax. If he wants to make 12 candles and each candle uses 8.4 ounces of beeswax, how many ounces of beeswax will he have left?

31. Asian purchased 3.5 lbs. of his favorite mixture of dried fruits to use in a trail mix. The total cost was $16.87. How much did the fruit cost per pound?

Part B: GCF and LCM

☐ I have completed Section B and checked my answers on Weebly.
☐ I can find GCF and LCM using multiple strategies and apply these concepts to real-life word problems with confidence.
☐ I need help with understanding Section B.

Show all work. Find the GCF and LCM for each set of numbers.

32. List all the factors of 100.

33. List the first six multiples of 6.

34. List the composite numbers from this set: 13, 19, 15, 29, 18, 22, 37, 43, 8

35. List all the prime numbers less than 100.

36. 23 and 32   GCF _____   LCM _____

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37. 12 and 15   GCF _____   LCM _____

38. 78 and 104   GCF _____   LCM _____

39. Suppose you jog every fifth day and swim every third day. You did both this afternoon. In how many days, will you do both again on the same day?

40. Sandra has three pieces of ribbon with lengths of 42 cm, 78 cm, and 108 cm. What is the length of the longest strips of equal length that Sandra can cut from the ribbon without wasting any?

41. Marcia listed all of the factors of 24 and all of the factors of 36. How many numbers appeared on both lists (are in common)?

42. Mrs. Cellphone has 12 jars of grape jam, 16 jars of strawberry jam, and 24 jars of raspberry jam. She wants to place the jam into the greatest possible number of boxes so that each box has the same number of jars of each kind of jam. How many boxes does she need?

43. Kimko is making flower arrangements. She has 16 red roses and 20 pink roses. Each arrangement must have the same number of red roses and the same number of pink roses. What is the greatest number of arrangements Kim can make if each flower is used?

44. String-cheese sticks are sold in packs of 10, and celery sticks in packs of 15. Mrs. Cozzie wants to give each of her students one string-cheese stick and one celery stick. What is the least number of packs she should buy so there are none left?

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Part C: Distributive Property
☐ I have completed Section C and checked my answers on Weebly.
☐ I can use the GCF to write equivalent expressions in the distributive property form with confidence.
☐ I need help with understanding Section C.

Rewrite the following problems to illustrate the distributive property.

45. 9 + 15   **46.** 36 + 54   **47.** 12 + 20   **48.** 30 + 100

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Part D: Dividing Fractions
☐ I have completed Section D and checked my answers on Weebly.
☐ I can divide fractions and interpret remainders and apply this concept to real-world word problems with confidence.
☐ I need help with understanding Section D.

49. $\dfrac{9}{4} \div \dfrac{3}{8}$ **50.** $\dfrac{3}{4} \div \dfrac{1}{2}$ **51.** $2\dfrac{2}{3} \div 1\dfrac{1}{6}$ **52.** $4\dfrac{3}{5} \div 1\dfrac{2}{3}$ **53.** $3\dfrac{5}{6} \div 1\dfrac{5}{9}$

54. Carli has $4\dfrac{1}{2}$ walls left to paint in order for all the bedrooms in her house to have the same color paint. However, she has used almost all of her paint and only has $\dfrac{5}{6}$ of a gallon left. How much paint can she use on each wall in order to have enough to paint the remaining walls?

55. Yasmine is serving ice cream with the birthday cake at her party. She has purchased $19\dfrac{1}{2}$ pints of ice cream. She will serve $\dfrac{3}{4}$ of a pint to each guest. How many guests can be served ice cream?

56. Yasmine needs to create invitations for the party. She has $\dfrac{3}{4}$ of an hour to make the invitations. It takes her $\dfrac{1}{12}$ of an hour to make each card. How many invitations can Yasmine create?

57. Rhonda put $2\dfrac{3}{4}$ pounds of pecans into $\dfrac{1}{4}$ - pound bags. How many bags did Rhonda fill?

58. Stacy has 6 pounds of chocolate. She will use $\dfrac{2}{3}$ pound of the chocolate to make one cake. How many cakes can she make?

59. Timmy has $\dfrac{8}{9}$ pound of clay. He will use $\dfrac{1}{3}$ pound to make each action figure. How many action figures can he make?

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Part E: Fractions to Decimals

☐ I have completed Section E and checked my answers on Weebly.
☐ I can convert fractions to decimals and distinguish between terminating and repeating decimals with confidence.
☐ I need help with understanding Section E.

Convert the following fractions to decimals.

60. $\dfrac{5}{8}$ This decimal is classified as a _____ decimal.

61. $\dfrac{2}{9}$ This decimal is classified as a _____ decimal.

62. $2\dfrac{5}{6}$

63. Use the long division algorithm to find the decimal value of $\dfrac{3}{4}$.

64. Chandler tells Aubrey that the decimal value of $\dfrac{1}{17}$ is not a repeating decimal. Should Aubrey believe him? Explain.

Make sure you are checking each section with the answers posted to Weebly. If you can't check that you can complete each section with confidence, please let Mrs. Wilson know so help can be arranged!!! ☺