

Study Guide—Number Sense

Key

Long Division:

1. What are the steps of long division?

\div X - ↓

2. What are remainders?

LEFT OVERS

3. How do you express them as fractions?

$\frac{\text{REMAINDER}}{\text{DIVISOR}}$

4. What is $236,600 \div 22$? Express any remainders as fractions.

$22 \overline{) 236600} = 10754 \frac{6}{11}$

5. What is $1250 \div 25$?

$25 \overline{) 1250} = 50$

6. Laura made a profit of \$1250 from selling raffle tickets. If 20 tickets were purchased, how much was each ticket? (Make sure your answer looks like money!! = decimal!)

$20 \overline{) 1250} = \$62.50$

GCF/LCM

1. How can you find the GCF and LCM with 2 numbers?

COMMON

2. How can you find the GCF and LCM with 3 numbers and which of the two are you allowed to "cheat" to find?

- 2 SEPARATE LISTS
- CHEAT WITH LCM

3. Joe has 6 bananas and 9 apples. He is making fruit baskets to give his friends. What is the greatest number of fruit baskets he can make without having any fruit left over?

$GCF = 3$

4. In these fruit baskets how many bananas are there and how many apples are there? (Use #3)

$\begin{array}{r} B \quad A \\ 3 \overline{) 6 \quad 9} \\ \underline{2 \quad 3} \end{array}$

3 APPLES

5. Bill is buying hot dogs and hot dog buns. Hot dogs come in packs of 8 and buns come in packs of 10. What is the fewest number of hot dog packages he can buy without having any leftover hot dogs?

LCM = 40 WHICH MEANS HE NEEDS TO BUY 5 PACKS

Distributive Property

1. Use a ladder to find the GCF of 24 and 32.

$\begin{array}{r} 2 \overline{) 24 \quad 32} \\ \underline{12 \quad 16} \\ 2 \overline{) 12 \quad 16} \\ \underline{6 \quad 8} \\ 3 \overline{) 6 \quad 8} \\ \underline{3 \quad 4} \end{array}$

GCF = 8

2. Use the GCF to find an equivalent expression for $24 + 36$

$12(2 + 3)$

$\begin{array}{r} 2 \overline{) 24 \quad 36} \\ \underline{12 \quad 18} \\ 3 \overline{) 12 \quad 18} \\ \underline{6 \quad 9} \\ 2 \overline{) 6 \quad 9} \\ \underline{3 \quad 3} \end{array}$

GCF = 12

3. Use the GCF to find an equivalent expression for $72 + 81$

$9(8 + 9)$

$\begin{array}{r} 3 \overline{) 72 \quad 81} \\ \underline{24 \quad 27} \\ 8 \quad 9 \end{array}$

GCF = 9

Dividing Fractions

1. What is the algorithm for dividing fractions?

KEEP
CHANGE
FLIP

2. Explain how to change a mixed number into an improper fraction.

$2 \frac{1}{2} = \frac{5}{2}$

3. If John has $8 \frac{1}{2}$ cups of flour and each cake calls for $\frac{3}{4}$ cup of flour, how many cakes can he make?

$8 \frac{1}{2} \div \frac{3}{4} = \frac{17}{2} \times \frac{4}{3} = \frac{34}{3}$

$\frac{17}{2} \div \frac{3}{4}$