

Unit 1 Pt. 1 Review: GCF/LCM and Long Division

Complete the following problems to review this unit. You must show all work to receive credit!

1) Find the greatest common factor of 30 and 48.

$$\begin{array}{r} 2 \overline{) 30} \quad 48 \\ \underline{30} \\ 0 \end{array}$$

GCF IS ON THE LEFT

$$\begin{array}{r} 3 \overline{) 15} \quad 24 \\ \underline{15} \\ 0 \end{array}$$

GCF = 2x3 = 6

2) Find the least common multiple of 10 and 6.

$$\begin{array}{r} 2 \overline{) 10} \quad 6 \\ \underline{10} \\ 0 \end{array}$$

LCM IS ALL OF THEM

$$\begin{array}{r} 3 \overline{) 6} \quad 10 \\ \underline{6} \\ 0 \end{array}$$

LCM = 2x5x3 = 30

3) Which choice lists all the factors of 48?

- ~~A~~ 1, 2, 4, 12, 24, 48
~~C~~ 0, 1, 2, 4, 6, 8, 12, 16, 48
 B 1, 2, 3, 4, 6, 8, 12, 16, 24, 48
~~D~~ 1, 2, 3, 4, 6, 10, 12, 15, 18, 24, 48

4) Is it possible to have a Greatest Common Multiple? Yes No
 Explain your reasoning: MULTIPLES GO ON FOREVER

THERE IS GREATEST COMMON MULTIPLE

5) Is it possible to have a Least Common Factor? Yes No
 Explain your reasoning: YES, 1 IS THE LEAST

COMMON FACTOR BETWEEN ANY GROUP OF NUMBERS

For #s 6 & 7, find the quotient, write your remainders as a fraction AND a decimal.

6)
$$\begin{array}{r} 2 \overline{) 537} \\ \underline{40} \\ 13 \\ \underline{12} \\ 17 \\ \underline{16} \\ 1 \end{array}$$

Fraction: $268 \frac{1}{2}$
 Decimal: 268.5

7)
$$\begin{array}{r} 15 \overline{) 6,138} \\ \underline{45} \\ 16 \\ \underline{15} \\ 138 \\ \underline{135} \\ 3 \end{array}$$

Fraction: $409 \frac{1}{3}$
 Decimal: 409.333

8) Talia has 28 pencils and 42 erasers. She is splitting them into bags for new students. Each bag will have an equal number of pencils and erasers. What is the maximum number of bags she can make? How many pencils and erasers will be in each bag?

bags she can make: 14
 # pencils per bag: 2
 # erasers per bag: 3

GCF

$$\begin{array}{r} 7 \overline{) 28} \quad 42 \\ \underline{28} \\ 0 \end{array}$$

$$\begin{array}{r} 2 \overline{) 4} \quad 6 \\ \underline{4} \\ 0 \end{array}$$

Hot dogs come in packs of 8 and hot dog buns come in packs of 10. What is the least number of packs of each that can be bought to make hot dogs (one hot dog and one bun) with no hot dogs or buns left over?

total number of hot dogs: 40
 packs of hot dogs: 5
 packs of buns: 4

LCM

$$\begin{array}{r} 2 \overline{) 8} \quad 10 \\ \underline{8} \\ 0 \end{array}$$

$$\begin{array}{r} 4 \overline{) 10} \\ \underline{8} \\ 2 \end{array}$$

10) A shipment of 478 textbooks came to a school. The books are being given out in class sets of 25. How many classrooms will receive a full class set of textbooks?

19 FULL SETS

$$\begin{array}{r} 25 \overline{) 478} \\ \underline{250} \\ 228 \\ \underline{225} \\ 3 \end{array}$$

LEFT OVER BOOKS

11) There are 1,460 people waiting to ride a roller coaster. Each cart takes 30 people. How many carts will it take for everyone in line to have a turn?

49 CARTS

$$\begin{array}{r} 30 \overline{) 1460} \\ \underline{90} \\ 560 \\ \underline{540} \\ 20 \end{array}$$

PEOPLE LEFT TO RIDE