Name: KEY Date: _____ Period _____ Unit 2 Test - GCF and LCM

Sample Test

1. What is the ***greatest common factor*** of 36 and 63?

A. 3 B. 6 C. 9 D. 18

36: 1, 2, 3, 4, 6, 9, 12, 18, 36
63: 1, 3, 7, 9, 21, 63

3 | 36 63
3 | 12 21
1 | 4 7

3 x 3 x 1 = 9

2. What is the ***least common multiple*** of 6 and 8?

A. 2 B. 4 C. 24 D. 32

6, 12, 18, 24, 30, 36, 42, 48
8, 16, 24

2 | 6 8
3 4

2 x 3 x 4
6 x 4 = 24

3. Jason and Sandra had a day off from work on October 1. Jason was off from work every third day, and Sandra was off from work every fourth day. When was the next day both Jason and Sandra were off from work?

LCM

A. October 7

B. October 8

C. October 12

D. October 13

JASON – 3, 6, 9, 12, 15, 18
SANDRA – 4, 8, 12

12 days later

October 1st + 12 days

4. Sarah bought 96 pencils and 84 erasers to make gift bags for her friends.

- Each bag will have the pencils and erasers.
- Each bag will have the same number of pencils.
- Each bag will have the same number of erasers.

If she uses all the supplies, what is the greatest number of pencils Sarah can put in each bag?

A. 6 B. 8 C. 12 D. 16

P E
12 | 96 84
8 7

12 bags
8 pencils
7 erasers

5. There are 18 chaperones and 81 students going on a class field trip.

- All of the students and chaperones will be in a group.
- The same number of students will be in each group.
- The same number of chaperones will be in each group.

What is the greatest number of groups that can be formed? GCF

A. 2 B. 3 C. 9 D. 18

3 | 18 81
3 | 6 27
2 9

3 x 3

6. At the grand opening of a restaurant, every eighth customer received a free desert, and every sixth customer received a free salad. Out of 100 customers, how many customers received both a free salad and a free dessert?

(A.) 4 B.7 C. 12 D. 17

6, 12, 18, 24
8, 16, 24, 32

every 24th customer

24, 48, 72, 96

7. Jason is buying hot dogs and hot dog buns. Hot dogs come in packages of 8 and hot dog buns come in packages of 10. How many packages of ***each*** will Jason need to buy so there are not hot dogs of or hot dog buns left over?

A. 6 packages of hot dogs and 5 packages of hot dog buns
B. 5 packages of hot dogs and 5 packages of hot dog buns
(C.) 5 packages of hot dogs and 4 packages of hot dog buns

LCM
1 2 3 4 5
HD 8, 16, 24, 32, 40
Buns 10, 20, 30, 40
1 2 3 4

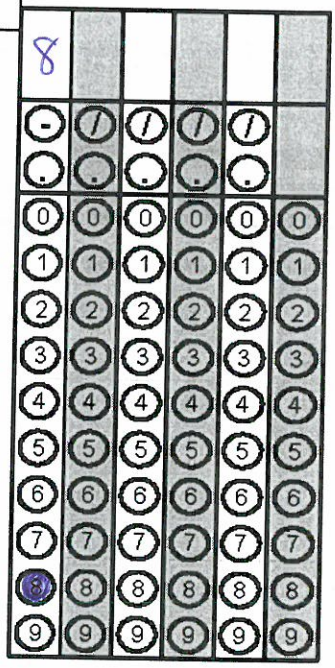
8. A cook has 16 slices of roast beef and 24 small potatoes. Each plate should have the same number of slices of roast beef and the same number of small potatoes. What is the largest number of plates that can be made with no roast beef or small potatoes remaining?

GCF

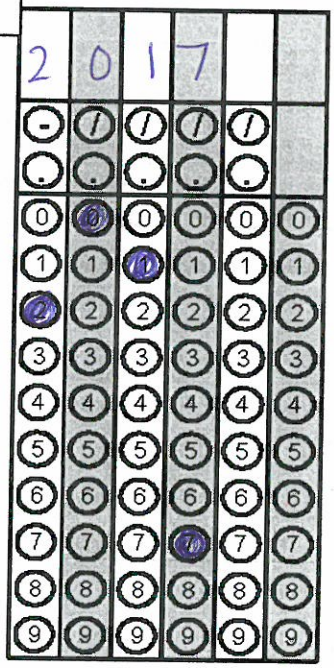
8 | 16 24
1 | 2 3

8 plates

8.



9.



9. In 2011, both Molly and Jerry went to the beach. Molly goes to the beach every 2 years. Jerry goes to the beach every 3 years. What is the next ***year*** that both Molly and Jerry will go to the beach in the same year?

2, 4, (6) 6 years later
3, (6)

2011 + 6 = 2017

10. Martha has 90 red tiles and 72 yellow tiles. She wants to place the tiles in rows using one color for each row without having any tiles left over. Each row must the same number of tiles. What is the greatest number of tiles Martha can use for each row?

A. 6 B. 9 (C.) 18 D. 30

2 | 90 72
3 | 45 36
3 | 15 12
1 | 5 4