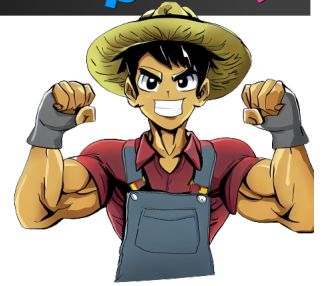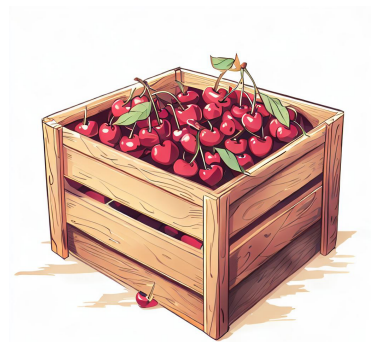Name: _____

GCF & LCM Word Problems

MAURICIO'S FARM

1.) Mauricio waters his apricot trees every 8 days, his fig trees every 6 days, and his olive trees every 16 days. If he watered all three types of trees today, in how many days will he water all three types of trees again on the same day?

2.) Mauricio needs to deliver crates filled with 15 pounds of apples, 12 pounds of nectarines, and 9 pounds of cherries to the local market. He can pack only one type of fruit into each crate, and he must pack the same number of pounds of fruit into each crate. What is the greatest number of pounds of fruit he can pack into each crate?

3.) Mauricio wants to plant 81 tomato plants, 63 jalapeño plants, and 36 cucumber plants on his farm. If he puts the same number of plants in each row and each row has only one type of plant, what is the greatest number of plants he can put in one row?

4.) Mauricio sells ears of corn in packages of 6 and eggs in packages of 8. If he wants to sell the same number of ears of corn and eggs in one day, what is the least number of packages of each he would need to sell?

5.) Mauricio changes the locations of his scarecrows every 20 days. If the last time that he changed the location of his scarecrows was on a Friday, how many days will pass before he changes the locations of his scarecrows again on a Friday?

ANSWER KEY

1.)
Multiples of 8: 8, 16, 24, 32, 40, **48**, 52, 60
Multiples of 6: 6, 12, 18, 24, 30, 36, 42, **48**, 54, 60
Multiples of 16: 16, 32, **48**, 64
He will water all three types of trees on the same day again in 48 days.

2.)
Factors of 15: 1, **3**, 5, 15
Factors of 12: 1, 2, **3**, 4, 6, 12
Factors of 9: 1, **3**, 9
He can pack 3 pounds of fruit into each crate.

3.)
Factors of 36: 1, 2, 3, 4, 6, **9**, 12, 18, 36
Factors of 81: 1, 3, **9**, 27, 81
Factors of 63: 1, 3, 7, **9**, 21, 63
He can plant 9 in each row.

4.)
Multiples of 6: 6, 12, 18, **24**, 30, 36, 42, 48
Multiples of 8: 8, 16, **24**
He would have to sell at least 24 of each item (4 packages of corn and 3 packages of eggs).

5.)
To find the Least Common Multiple, multiply 20 days by 7 days in a week to land on a Friday again.

$$20 \times 7 = 140$$

He will move the scarecrows on a Friday again in 140 days.