

Greatest Common Factor (GCF) and Least Common Multiple (LCM) word problems

Grade 5 Math Word Problems Worksheet

1. A donation drive campaign has collected 15 sacks of clothes, 30 boxes of canned goods and 45 gallons of mineral water to be donated to families affected by a storm surge. The 3 campaign managers decided to distribute the same amount to each family, with no donations left over. How many families will receive the donations? How many boxes of canned goods will each family receive?

2. It's vote counting day for an election held in a country. The 3 TV stations updated the public about the number of votes cast starting at 7:00 in the morning. TV station A announces the vote counts every 2 hours, TV station B announces it every 3 hours, and TV station C announces it every 4 hours. At what time will the three TV stations announce the vote counts at the same time?





3. The fruit seller needs to pack some fruit in baskets to be sold before New Year's Day. There were 45 oranges, 54 bundles of grapes and 27 melons in the stock room which needed to be packed. Each basket needed to have the same number of pieces of fruit in it. What is the greatest number of baskets of fruit the fruit seller will pack? How many oranges are there in each basket?

4. Janice plans to buy packages of candies to give to children out trick-or-treating. Each package of lollipops contains 50 pieces and each package of chewing gum contains 30 pieces. She wants to give out the same number of each item. What is the least number of treats she needs to buy? How many packs of lollipops does she need to buy?

5. The 3 lighthouses flash at different times – one every 20 minutes, one every 40 minutes and one every 50 minutes. If the three lighthouses came on at 6:00 in the evening, at what time will the three lighthouses flash again at the same time?



Answers

- 1. Factors of 15: 1, 3, 5, <u>**15**</u> 30: 1, 2, 3, 10, <u>**15**</u>, 30 45: 1, 3, 5, 9, <u>**15**</u>, 45 15 families will receive the donations. $30 \div 15 = 2$ Each family will receive 2 boxes of canned goods.
- Multiples of 2: 2, 4, 6, 8, 10, <u>12</u>,14
 3: 3, 6, 9, <u>12</u>, 15
 4: 4, 8, <u>12</u> 16, 20
 The three TV stations will update the vote counts at the same time after 12 hours, which is 7:00 in the evening.
- The factors of 45: 1, 3, 5, <u>9</u>, 15, 45
 54: 1, 2, 3, 6, <u>9</u>, 27, 54
 27: 1, 3, <u>9</u>, 27
 The fruit seller can pack all the fruit in 9 baskets.
 45 ÷ 9 = 5
 Each basket has 5 oranges.
- 4. Multiples of 50: 50, 100, <u>**150**</u>, 200, 250 Multiples of 30: 30, 60, 90, 120, <u>**150**</u>, 180 In order to have the same amount of each treat, Janice needs to buy 150 pieces of each type. $150 \div 50 = 3$ She needs to buy 3 packs of lollipops.
- Multiples of 20: 20, 40, 60, 80, 100, 120, 140, 160, 180, <u>200</u>
 40: 40, 80, 120, 160, <u>200</u>, 240
 50: 50, 100, 150, <u>200</u>, 250
 The three lighthouses will flash together every 200 minutes or 3 hours and 20 minutes. The three lighthouses will flash at the same time again at 9:20 in the evening.