Name: _____ Date: _____

GCF and LCM Word Problems

Grade 6 • 22 questions • Part A: does the problem need the GCF or the LCM? Circle one

1. Pencils come in packs of 6 and erasers in packs of 8. What is the fewest of each you can buy to have the same number? GCF LCM

2. 24 roses and 36 lilies are made into identical bunches with none left. What is the greatest number of bunches? GCF LCM

3. Two lights blink every 4 and 10 seconds. They blink together now. When do they next blink together? GCF LCM

4. A 30 cm and a 45 cm ribbon are cut into equal pieces, as long as possible. How long is each piece? GCF LCM

5. A 12 by 20 garden is split into the largest equal squares. What is the side of each square? GCF LCM

6. Kim swims every 3 days and runs every 4 days. She did both today. In how many days will she do both again? GCF LCM

Part B • Solve. Show your working

7. Mr. Ali has 18 red and 24 blue counters. He shares them into identical groups with none left. What is the greatest number of groups?
Answer: _____

8. Hot dogs come in packs of 10 and buns in packs of 8. What is the fewest hot dogs to buy so every hot dog has a bun?
Answer: _____

9. Bus A leaves every 15 minutes and bus B every 20 minutes. Both leave at 9:00. When do they next leave together?
Answer: _____

10. A florist has 36 tulips and 48 daisies for identical vases, none left. How many tulips go in each vase if she uses the most vases?
Answer: _____

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GCF and LCM Word Problems

Part B continued • Solve. Decide GCF or LCM first

11. Juice comes in packs of 6 and cups in packs of 9. What is the smallest number of cups you need to match the juice exactly?
Answer: _____

12. A room is 16 feet by 28 feet. What is the largest square tile, in whole feet, that fits with no cutting?
Answer: _____

13. Two runners start together. One laps the track every 6 minutes, the other every 8 minutes. After how many minutes are they at the start together?
Answer: _____

14. There are 32 girls and 40 boys. Teams must be the same, with every child on a team. What is the greatest number of teams?
Answer: _____

15. A clock chimes every 12 minutes and a bell rings every 18 minutes. Both sound at noon. When do they next sound together?
Answer: _____

16. Plates come in packs of 8 and napkins in packs of 12. How many packs of each give the same number of plates and napkins?
Answer: _____

17. Two ropes are 42 m and 56 m. They are cut into equal lengths, as long as possible. How many pieces are there in all?
Answer: _____

18. A baker has 45 muffins and 60 cookies for identical boxes, none left. What is the most boxes, and what is in each box?
Answer: _____

19. Sara visits the library every 5 days and the pool every 7 days. She did both on June 1. On what date will she do both again?
Answer: _____

20. Write your own GCF word problem using the numbers 20 and 30. Then solve it.
Answer: _____

21. Write your own LCM word problem using the numbers 4 and 6. Then solve it.
Answer: _____

22. Check: a classmate says the LCM of 8 and 12 is 96. Is that right? Explain.
Answer: _____

Answer Key — GCF and LCM Word Problems

1. LCM
2. GCF
3. LCM
4. GCF
5. GCF
6. LCM
7. 6 groups (GCF)
8. 40 (LCM)
9. 10:00 (LCM 60 minutes)
10. 3 tulips (12 vases)
11. 18 (LCM)
12. 4 feet (GCF)
13. 24 minutes (LCM)
14. 8 teams (GCF)
15. 12:36 (LCM 36 minutes)
16. 3 packs of plates, 2 of napkins (24)
17. 7 pieces (14 m each: 3 + 4)
18. 15 boxes: 3 muffins and 4 cookies
19. July 6 (LCM 35 days)
20. answers vary; GCF = 10
21. answers vary; LCM = 12
22. No: 96 is a common multiple, but 24 is the least