

HCF and LCM for Class 5 — Listing Method

Unit: Factors & Multiples - Student Practice Worksheet

Overview: Two questions, same two numbers, opposite answers. The largest tile that fits a floor exactly. The soonest two bells ring together. One answer is small. The other is large. Choosing wrong is the whole difficulty.

Practice Questions (30 Total)

Section A - Easy

Q1. Two rectangles for 18. List all factors of 18.



18 as 2×9 and 3×6

- ☐ A. 1, 2, 3, 6, 9, 18
- ☐ B. 1, 2, 3, 9, 18
- ☐ C. 2, 3, 6, 9
- ☐ D. 18, 36, 54

Q2. Which of these is a factor of 20 but NOT a multiple of 20?

- ☐ A. 5
- ☐ B. 40
- ☐ C. 60
- ☐ D. 20

Q3. Find the HCF of 12 and 18.

- ☐ A. 3
- ☐ B. 6
- ☐ C. 36
- ☐ D. 2

Q4. Five jumps of 4. First five multiples of 4?



jumps of 4

- ☐ A. 1, 2, 4
- ☐ B. 4, 8, 16, 32, 64
- ☐ C. 4, 8, 12, 16, 20
- ☐ D. 0, 4, 8, 12, 16

Q5. Find the LCM of 2 and 3.

- ☐ A. 1
- ☐ B. 5
- ☐ C. 12
- ☐ D. 6

Q6. Find the LCM of 4 and 6.

- ☐ A. 2
- ☐ B. 24
- ☐ C. 4
- ☐ D. 12

Q7. Factor lists of 8 and 12. Highest shared factor?

8: 1,2,4,8

12: 1,2,3,4,6,12

- ☐ A. 4
- ☐ B. 2
- ☐ C. 24
- ☐ D. 8

Q8. Find the HCF of 5 and 10.

- ☐ A. 1
- ☐ B. 10
- ☐ C. 5
- ☐ D. 50

Q9. Find the LCM of 3 and 5.

- ☐ A. 8
- ☐ B. 15
- ☐ C. 1
- ☐ D. 30

Q10. HCF of 9 and 16, and what it means that they share only 1.

- ☐ A. 3
- ☐ B. 1
- ☐ C. 144
- ☐ D. 9

Section B - Medium

Q11. Find the HCF of 16 and 24 from shared factors.

16 factors

24 factors

- ☐ A. 4
- ☐ B. 8
- ☐ C. 48
- ☐ D. 16

Q12. Two numbers share no factor except 1. What is their LCM?

- ☐ A. 1
- ☐ B. The smaller one
- ☐ C. The larger one
- ☐ D. Their product

Q13. Find the LCM of 8 and 12.

- ☐ A. 96
- ☐ B. 4
- ☐ C. 24
- ☐ D. 48

Q14. Multiple lists of 6 and 9. First shared multiple?

6: 6,12,18,24

9: 9,18,27

- ☐ A. 18
- ☐ B. 54
- ☐ C. 3
- ☐ D. 36

Q15. Find the HCF of 24 and 36.

- ☐ A. 12
- ☐ B. 6
- ☐ C. 72
- ☐ D. 24

Q16. Find the HCF of 20 and 30.

- ☐ A. 5
- ☐ B. 60
- ☐ C. 20
- ☐ D. 10

Q17. 14 and 21 both sit on 7. HCF?

14 and 21, shared 7

- ☐ A. 1
- ☐ B. 7
- ☐ C. 42
- ☐ D. 14

Q18. Find the LCM of 12 and 16.

- ☐ A. 4
- ☐ B. 192
- ☐ C. 48

☐ D. 96

Q19. Find the LCM of 10 and 15.

☐ A. 150

☐ B. 5

☐ C. 30

☐ D. 60

Q20. LCM of 5 and 7, and why the product works when nothing is shared.

☐ A. 12

☐ B. 1

☐ C. 70

☐ D. 35

Section C - Challenge

Q21. Greatest length that measures 20 cm and 30 cm exactly.



☐ A. 10 cm

☐ B. 60 cm

☐ C. 5 cm

☐ D. 50 cm

Q22. A student gives 36 as the HCF of 12 and 18. What is wrong?

☐ A. Nothing, it is correct

☐ B. The HCF cannot exceed the smaller number

☐ C. 36 is not a multiple of 12

☐ D. The HCF must be prime

Q23. Find the HCF of 12, 18 and 24.

☐ A. 12

☐ B. 2

☐ C. 6

☐ D. 72

Q24. Bells every 6 and 8 minutes. Next time they ring together?



- ☐ A. After 2 minutes
- ☐ B. After 24 minutes
- ☐ C. After 48 minutes
- ☐ D. After 14 minutes

Q25. Kabir answered 6 for the bells ringing every 12 and 18 minutes. How could he tell it was wrong without checking?

- ☐ A. 6 is smaller than both numbers, so no bell has rung yet
- ☐ B. 6 is not a factor of 12
- ☐ C. 6 is an even number
- ☐ D. 6 is too small to be an HCF

Q26. Find the LCM of 4, 6 and 8.

- ☐ A. 48
- ☐ B. 12
- ☐ C. 192
- ☐ D. 24

Q27. Share 18 apples and 24 oranges equally. Maximum children?

18 apples

24 oranges

- ☐ A. 72
- ☐ B. 3
- ☐ C. 6
- ☐ D. 42

Q28. Find the least number divisible by 5, 6 and 10.

- ☐ A. 300
- ☐ B. 60
- ☐ C. 1
- ☐ D. 30

Q29. Find the smallest number that both 8 and 10 divide exactly.

- ☐ A. 80
- ☐ B. 2
- ☐ C. 40
- ☐ D. 20

Q30. Greatest number that divides 36 and 48, checking it really divides both.

- ☐ A. 6
- ☐ B. 144
- ☐ C. 36
- ☐ D. 12

Answer Key

- Q1:** (A) (a) 1, 2, 3, 6, 9, 18. Option (d) lists multiples rather than factors.
- Q2:** (A) (a) 5. It divides 20 exactly. Options (b) and (c) are multiples, and 20 is both a factor and a multiple of itself.
- Q3:** (B) (b) 6. Shared factors are 1, 2, 3 and 6, and 6 is the largest. Option (c) is their LCM.
- Q4:** (C) (c) 4, 8, 12, 16, 20. Option (b) doubles each time instead of adding 4.
- Q5:** (D) (d) 6. Since 2 and 3 share no factor, their LCM is simply their product.
- Q6:** (D) (d) 12. Multiples of 4 are 4, 8, 12 and of 6 are 6, 12 — the first shared one is 12. Option (a) is their HCF.
- Q7:** (A) (a) 4. Shared factors are 1, 2 and 4. Option (d) fails the size check only in the sense that 8 does not divide 12.
- Q8:** (C) (c) 5. When one number divides the other exactly, the smaller one IS the HCF.
- Q9:** (B) (b) 15. Option (a) adds them, and option (c) is their HCF.
- Q10:** (B) (b) 1. They share no factor other than 1. Option (c) is their LCM.
- Q11:** (B) (b) 8. Shared factors are 1, 2, 4 and 8. Option (d) fails because 16 does not divide 24.
- Q12:** (D) (d) Their product. With nothing shared to save, the first common multiple is the two multiplied together.
- Q13:** (C) (c) 24. Option (a) multiplies them, which only gives the LCM when the numbers share no factor.
- Q14:** (A) (a) 18. Multiples of 6 are 6, 12, 18 and of 9 are 9, 18. Option (b) is their product.
- Q15:** (A) (a) 12. Option (b) is a common factor but not the highest, and option (c) is their LCM.
- Q16:** (D) (d) 10. Shared factors are 1, 2, 5 and 10. Option (a) is a common factor but not the highest one.
- Q17:** (B) (b) 7. Both are multiples of 7, and nothing larger divides both.
- Q18:** (C) (c) 48. Option (b) is their product, too large because they share a factor of 4.
- Q19:** (C) (c) 30. Option (a) is their product, which overshoots because they share a factor of 5.
- Q20:** (D) (d) 35. They share no factor, so the LCM is the product. Option (a) adds them instead.
- Q21:** (A) (a) 10 cm. 'Greatest' and 'measures exactly' means HCF. Option (b) is the LCM, and a 60 cm ruler cannot measure a 20 cm strip.
- Q22:** (B) (b) The HCF cannot exceed the smaller number. 36 is their LCM, so the two have been swapped.
- Q23:** (C) (c) 6. It must divide all three, and 6 is the largest that does. Option (a) fails on 18.
- Q24:** (B) (b) After 24 minutes. Option (a) is their HCF, which is impossible — no bell rings before its first ring.
- Q25:** (A) (a) 6 is smaller than both numbers, so no bell has rung yet. The LCM must be at least as large as the larger number.

Q26: (D) (d) 24. Option (b) is a multiple of 4 and 6 but not of 8.

Q27: (C) (c) 6. Sharing out equally means HCF. Option (a) is the LCM, more children than there are apples.

Q28: (D) (d) 30. 'Least number divisible by' means LCM. Option (b) is divisible by all three but is not the least.

Q29: (C) (c) 40. Option (a) is their product, larger than necessary since they share a factor of 2, and option (d) is not divisible by 8.

Q30: (D) (d) 12. Option (a) divides both but is not the greatest, and option (c) does not divide 48.

You've got this! Keep learning and shining! - Ruchi Math Coaching