Factors & Multiples (Revision Questions)

1. Multiples (5 questions)

1. What are the first 5 multiples of 6?
2. List the first 3 multiples of 9.
3. Which of the following numbers are multiples of 4? (16, 22, 36, 45)
4. Is 45 a multiple of 5? Explain how you know.
5. What is the smallest multiple of 7 greater than 40?

2. Least Common Multiple (LCM) (3 questions)

6. What is the LCM of 4 and 5?
7. Find the LCM of 6 and 9.
8. What is the LCM of 8 and 12?

3. Factors (5 questions)

9. List all the factors of 18.
10. What are the factors of 24?
11. Which number is a common factor of 12 and 16?
12. Find the factors of 36.
13. Are 4 and 9 factors of 36? Why?

4. Prime Numbers (5 questions)

14. Is 7 a prime number? Explain why.
15. List all prime numbers between 10 and 20.
16. What is the smallest prime number?
17. Is 15 a prime number? Why or why not?
18. Find the prime numbers between 1 and 30.

5. Highest Common Factor (HCF) (2 questions)

19. What is the HCF of 12 and 15?
20. Find the HCF of 18 and 24.

6. Product Factor Tree (3 questions)

21. Draw the factor tree for 24.
22. Create a factor tree for 36.
23. Use a factor tree to find the prime factors of 60.

7. Square Numbers (4 questions)

24. What is the square of 6?
25. List the first 5 square numbers.
26. Is 49 a square number? If so, what is its square root?
27. What is the square of 9?

8. Cube Numbers (3 questions)

28. What is the cube of 3?
29. List the first 3 cube numbers.
30. Is 64 a cube number? If so, what is its cube root?

Decimal Problem-Solving Questions

1. Nina buys 2.35 meters of fabric for a project. She uses 1.12 meters for a dress and 0.78 meters for a scarf. How much fabric does she have left?
2. A farmer has 500.0 kilograms of wheat. He sells 125.75 kilograms and then another 87.5 kilograms. How much wheat does he have now?
3. A tank holds 2500.0 litres of water. A pump removes water at a rate of 100.5 litres per hour for 3 hours. How much water remains in the tank?
4. A car travels 0.085 kilometres in one minute. How far will it travel in 1000 minutes?
5. A packet contains 4.5 kilograms of flour. A recipe uses 0.25 kilograms of flour per batch. How many batches can you make with one packet of flour?
6. A cyclist covers 12.75 kilometres in one hour. How many kilometres will they cover in 100 hours?
7. A construction worker lays 0.85 meters of bricks in one hour. How many meters of bricks will he lay in 1000 hours?
8. A piece of string measures 5.625 meters. It is cut into 5 equal pieces. How long is each piece?
9. A bakery needs to pack 124.8 kilograms of flour into 100 bags. How much flour will be in each bag?
10. A garden hose releases 15.625 litres of water per minute. How much water will it release in 1000 minutes?
11. James runs 5.125 kilometres in a race. Sarah runs 2.75 kilometres farther than James. How far does Sarah run?
12. A cyclist rides 0.975 kilometres per minute. How many kilometres does the cyclist ride in 100 minutes?
13. A car consumes 0.075 litres of fuel per kilometre. How much fuel will it use to travel 1000 kilometres?
14. Jenny has a plank of wood that measures 6.75 meters. She cuts off a piece that is 2.5 meters long. How long is the remaining piece?
15. A box contains 18.5 kilograms of apples. If each kilogram of apples costs £2.75, how much will the entire box of apples cost?
16. A garden bed measures 4.5 meters in length and 1.25 meters in width. What is the area of the garden bed?
17. Tim cycles at a speed of 15.25 kilometres per hour. How far will he travel in 100 hours?
18. A box of cereal weighs 0.675 kilograms. If 10 boxes are packed together, what is the total weight?
19. Sophie buys 3.875 meters of ribbon. She uses 0.625 meters for one project and 0.75 meters for another. How much ribbon does she have left?
20. Convert 7/8 to a decimal.

Answers

1. The first 5 multiples of 6 are: 6, 12, 18, 24, 30.
2. The first 3 multiples of 9 are: 9, 18, 27.
3. Multiples of 4 from the list: 16 and 36.
4. Yes, 45 is a multiple of 5 because 45 ÷ 5 = 9 (a whole number).
5. The smallest multiple of 7 greater than 40 is: 42.
6. The LCM of 4 and 5 is: 20.
7. The LCM of 6 and 9 is: 18.
8. The LCM of 8 and 12 is: 24.
9. Factors of 18: 1, 2, 3, 6, 9, 18.
10. Factors of 24: 1, 2, 3, 4, 6, 8, 12, 24.
11. Common factor of 12 and 16: 4.
12. Factors of 36: 1, 2, 3, 4, 6, 9, 12, 18, 36.
13. Yes, 4 and 9 are factors of 36 because 36 ÷ 4 = 9 and 36 ÷ 9 = 4.
14. Yes, 7 is a prime number because it has only 2 factors: 1 and 7.
15. Prime numbers between 10 and 20: 11, 13, 17, 19.
16. The smallest prime number is: 2.
17. No, 15 is not a prime number because it has more than two factors: 1, 3, 5, and 15.
18. Prime numbers between 1 and 30: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29.
19. The HCF of 12 and 15 is: 3.
20. The HCF of 18 and 24 is: 6.
21. Prime factors of 24: 2 × 2 × 2 × 3.
22. Prime factors of 36: 2 × 2 × 3 × 3.
23. Prime factors of 60: 2 × 2 × 3 × 5.
24. The square of 6 is: 36.
25. The first 5 square numbers are: 1, 4, 9, 16, 25.
26. Yes, 49 is a square number, and its square root is: 7.
27. The square of 9 is: 81.
28. The cube of 3 is: 27.
29. The first 3 cube numbers are: 1, 8, 27.
30. Yes, 64 is a cube number, and its cube root is: 4.

Decimal Problem Solving answers

1. 0.45 meters
2. 286.75 kilograms
3. 2198.5 liters
4. 85 kilometers
5. 18 batches
6. 1275 kilometers
7. 850 meters
8. 1.125 meters
9. 1.248 kilograms
10. 15625 liters
11. 7.875 kilometers
12. 97.5 kilometers
13. 75 liters
14. 4.25 meters
15. £50.88
16. 5.625 square meters
17. 1525 kilometers
18. 6.75 kilograms
19. 2.5 meters
20. 0.875