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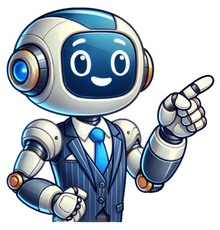

Additional Information about Patterns for Grade 5 Preparation Importance of Patterns Grade 5: Understanding Patterns is crucial for Grade 5 exam success. Knowing its pattern, syllabus, and question paper analysis can significantly boost preparation. Practice papers and mock tests help improve performance. Best books and study materials, along with coaching and toppers' notes, are valuable resources. Stay updated with the official website for exam dates and results. Videos offer helpful explanations of complex concepts. Patterns is a vital topic within [Subject], and mastering it ensures a solid foundation. Get Patterns notes for the Grade 5 exam in a convenient PDF format at EduRev. Access free study material, syllabus, preparation tips, question papers, and mock tests. Enhance your exam preparation with subject-wise study material, best books, and sample papers. Stay updated with the latest exam pattern, date, and result announcements. Ace your Grade 5 exam with Toppers' notes, language practice papers, and paper analysis. All resources available at EduRev, the official website for comprehensive and reliable study material. Important Questions for Patterns in Grade 5. Ace your Grade 5 exam with these crucial questions focused on Patterns. Get familiar with the exam pattern, syllabus, and preparation tips relevant to Patterns. Enhance your skills with practice papers tailored for Patterns, question paper analysis, and language proficiency. Access the best books, sample papers, and study material specifically designed for Patterns to ensure effective preparation. Stay informed about the Grade 5 exam date and official website updates. Prepare smartly with EduRev, your ultimate resource for mastering Patterns in Grade 5. Get ready to ace your Grade 5 exam with Patterns Practice Questions! This comprehensive collection of practice papers and question papers is designed to help you master the exam. Boost your preparation with paper analysis and best books recommended by toppers. Access study material, notes, and sample papers for thorough revision. Stay updated with the exam date and official website for important announcements. Practice with mock tests and videos to enhance your understanding. Achieve success in Grade 5 with this reliable study resource, brought to you exclusively by EduRev. Patterns questions and answers are given here to help students understand how to solve patterns questions using simple techniques. Solving different pattern questions will be beneficial for a quick understanding of the logic in patterns. In this article, you will learn how to solve patterns in maths with detailed explanations. What are Patterns in Mathematics? In mathematics, a pattern is a sequence of numbers that are formed in a particular way. Every pattern contains a specific rule. For example, the sequence of even numbers is a pattern since each number is obtained by adding 2 to the previous number. i.e., 2, 4, 6, 8, 10, 12, 14,.... Here, 2 + 2 = 4 4 + 2 = 6 6 + 2 = 8 8 + 2 = 10 and so on. Also, check: Patterns Number patterns in Whole numbers Algebra as pattern A pattern can be of numbers or figures, which means we can also observe patterns in a sequence of similar figures. Let’s have a look at the solved problems on the various number and figure patterns. Patterns Questions and Answers 1. Identify the pattern for the following sequence and find the next number. 2, 3, 5, 8, 12, 17, 23, ____. Solution: Given, 2, 3, 5, 8, 12, 17, 23, ____ The pattern involved in the given sequence is: 2 + 1 = 3 3 + 2 = 5 5 + 3 = 8 8 + 4 = 12 12 + 5 = 17 17 + 6 = 23 23 + 7 = 30 Therefore, the next number of the given sequence is 30. 2. Observe the below figure and identify the missing part. Solution: Consider the question figure, where the design in each part will be obtained by rotating the previous design by 90 degrees in the clockwise direction. So, the missing part will be option (b). Hence, the complete figure is: 3. Write the next three numbers of the following sequence. 173, 155, 137, 119, 101 Solution: 173, 155, 137, 119, 101 The pattern in the given sequence is: 173 – 18 = 155 155 – 18 = 137 137 – 18 = 119 119 – 18 = 101 So, the next three numbers can be written as: 101 – 18 = 83 83 – 18 = 65 65 – 18 = 47 Thus, the sequence is 173, 155, 137, 119, 101, 83, 65, 47. 4. Observe the following figure and choose the correct option. Solution: Each part of the square box contains a triangle inscribed in the circle in the given figure. Also, the triangle in the next circle is the vertical image of the previous one. Similarly, in the second row, the triangle in the missing part will be an image of the previous one. Thus, the missing part is option (a). 5. What is the formula for the pattern for this sequence? 11, 21, 31, 41, 51, 61, 71 Solution: Given, 11, 21, 31, 41, 51, 61, 71 The numbers in this sequence are written as: 11 + 10 = 21, 21 + 10 = 31, 31 + 10 = 41, and so on. This can also be expressed as: 11 = 10 + 1 = 10 × 1 + 1 21 = 20 + 1 = 10 × 2 + 1 31 = 30 + 1 = 10 × 3 + 1 41 = 40 + 1 = 10 × 4 + 1 and so on. From this, we can write the formula for the above pattern as: 10n + 1, where n = 1, 2, 3, etc. 6. Find the pattern in the sequence and write the next two numbers. 10, 17, 36, 73, 134,... Solution: Given sequence is: 10, 17, 36, 73, 134,... 10 = 13 + 9 17 = 23 + 9 36 = 33 + 9 73 = 43 + 9 134 = 53 + 9 So, the next number = 63 + 9 = 216 + 9 = 225 Again, the next number = 73 + 9 = 343 + 9 = 352 Therefore, the sequence is: 10, 17, 36, 73, 134, 225, 352. 7. Observe the pattern given below. Find the missing number. Solution: In the given figure, we can observe that the sum of the four numbers is equal to the number written in the middle of the shape. That means, 11 + 22 + 33 + 44 = 110 16 + 24 + 32 + 40 = 112 ? + 23 + 34 + 12 = 114 ? = 114 – 23 – 34 – 12 = 45 Therefore, the missing number is 45. 8. What is the next number of the following sequence? 20, 18, 21, 16, 23, 12, 25, 8, 27, 4, 33, ? Solution: Given sequence: 20, 18, 21, 16, 23, 12, 25, 8, 27, 4, 33 Let us find the difference between two consecutive numbers of the sequence to identify the pattern. 18 – 20 = -2 21 – 18 = 3 16 – 21 = -5 23 – 16 = 7 12 – 23 = -11 25 – 12 = 13 8 – 25 = -17 27 – 8 = 19 4 – 27 = -23 33 – 4 = 29 Here, we can see that the differences are the prime numbers. So, the number number = 33 – 31 = 2 9. Estimate the next number of the following sequence. 1, 2, 6, 15, 31, ? Solution: Given, 1, 2, 6, 15, 31, ? Let’s write the difference between consecutive numbers. 2 – 1 = 1 6 – 2 = 4 15 – 6 = 9 31 – 15 = 16 Here, 1 = 12, 4 = 22, 9 = 32, 16 = 42. Thus, the next number of the sequence will be obtained by adding 52, i.e. 25, to the previous number. Therefore, 31 + 52 = 31 + 25 = 56. 10. What will be the next number of the given sequence? 1, 5, 12, 22, 35, ? Solution: Given sequence is: 1, 5, 12, 22, 35, ? Let’s write the difference between consecutive numbers. 5 – 1 = 4 12 – 5 = 7 22 – 12 = 10 35 – 22 = 13 The difference between these numbers follows a pattern that 3 is odd to the previous difference. So, the next number will be obtained by adding 13 + 3, i.e. 16 to 35. Hence, the next number = 35 + 16 = 51. Practice Problems on Patterns Identify the pattern and write the missing number. 18, 30, ___, 54, 66 Find the correct number to complete the pattern given below. 20, 21, 23, 26, 30, 35, 41, ___. Which is the next number in the following pattern? 5, 16, 51, 158, ? Find the next number in the sequence, 12, 21, 23, 32, 34, 43. Write the missing numbers in the following. 60 54 x 42 36 30 y 18 12 6 1. Fill in the blanks.$82 \times \ldots \ldots=\ldots \ldots \times 45$$46+\ldots . .=\ldots \ldots+89$$45+15+\ldots \ldots=45+36+\ldots .$$45 \times \ldots \times 89=15 \times \ldots . \times 45$$A, D, G, \ldots ., M, P$2. Complete the Series.36, 46, 56, 66, 76, ..., ..., ...3. Complete the PatternAB, BC, CD, DE, ..., ..., ..., ...4. Look at the pattern of the number and take it forward.$1 \times 1=1$$11 \times 11=121$$111 \times 111=12321$$1111 \times 1111=! ! ! ! !$5. You will get the number in each bracket by multiplying the number on both side on the box. 6. Use all of the numbers between 46 and 54 to fill in the square. 150 is the sum of each line.7. What should happen next? 8. What should happen next? 9. What should happen next? 10. Look at this pattern and guess the correct option. 11. Find the incorrect number in the pattern provided.13, 26, 39, 52, 66, 78, 91, 104, 11712. Find the incorrect number in the pattern provided.ae, bf, cg, dh, ek, fj13. Find the incorrect number in the pattern provided.16, 25, 36, 49, 64, 81, 100014. Complete the Series.a, e, ..., o, u15. Complete the given pattern by filling in the next number.December, October, August, June,....., ...16. Complete the given pattern by filling in the next number.A1B, C2D, E3F, G4H,.....17. Complete the given pattern by filling in the next number.777, 666, 555, 444,.....18. Find the missing number in the given series 13, 24, 46, 90, 178, ?.19. Find the missing number in the given series 4, 18, ___, 100, 180, 294, 448.20. Complete the given pattern by filling in the next number.ZA, YB, XC, WD,.....Answers to the Worksheet:1. Below are the correct fill in the blanks:$82 \times \underline{45} = \underline{82} \times 45$$46 + \underline{89} = \underline{46} + 89$$45+15+ \underline{36} =45+36+ \underline{15}$$45 \times \underline{15} \times 89=15 \times \underline{89} \times 45$$A, D, G,$ $\underline{J},$ M, P 2. Here from the pattern we can see that there is the addition of 10 with each successive term.Hence, on completing the series, we get$36, 46, 56, 66, 76, \underline{86}, \underline{96}, \underline{106}$3. Here from the pattern it can be seen that each AB is followed by 1 place forward. i.e. A will become B and B will become C. So AB followed by BC then CD and so on.Hence, the pattern will become:$AB, BC, CD, DE, \underline{EF}, \underline{FG}, \underline{GH}$4. Look at the pattern of the number and take it forward.$1 \times 1=1$$11 \times 11=121$$111 \times 111=12321$$1111 \times 1111= \underline{1234321}$5. You will get the number in each bracket by multiplying the number on both side on the box. 6. Here, we will use all of the numbers between 46 and 54 to fill in the square. As 150 is the sum of each line.49$\underline{53}$48$\underline{50}$$\underline{54}4647\underline{51}$527. The correct pattern will become 8. The correct pattern will become 9. The correct pattern will become option c. 11. Correct option: (b)Here, in this question we have to find the incorrect number in the pattern provided.13, 26, 39, 52, 66, 78, 91, 104, 117So as per the pattern,13 + 13 = 2626 + 13 = 3939 + 13 = 5252 + 13 = 6565 + 13 = 7878 + 13 = 9191 + 13 = 104104 + 13 = 117Therefore, 66 is the number that is wrong in the given pattern.12. Here, in this question we have to find the incorrect number in the pattern provided.ae, bf, cg, dh, ek, fjSo as from the table we can see that the ek is not following the pattern.Hence, ek is the correct answer. i.e. option (c).13. Correct option: (a)In this question, we need to find the incorrect number in the pattern provided.16, 25, 36, 49, 64, 81, 1000As,$4 \times 4=16$$5 \times 5=25$$6 \times 6=36$$7 \times 7=49$$9 \times 9=81$$10 \times 10=100$Therefore, 1000 is the number that is wrong in the given pattern.14. In this question, we have to complete the Series.a, e, __, o, uIf we look at the English vowels, it can be like this;a, e , i, o, u15. December, October, August, June, April,....., ...Months: January, February, March, April, May, June, July, August, September, October, November, December.Here the four months of the year have been told, on the basis of which this pattern can be made. By counting from December in reverse pattern one month is skipped.December, October, August, June, April, February.16. A1B, C2D, E3F, G4H, I5J, K6L, M7N.Here, the pattern is as following:In 1st letter, there is the gap of one alphabet. i.e. A, C, E, G, I, K, M ...In 2nd letter, there is no gap in counting. i.e. 1, 2, 3, 4, 5, 6, 7...In 3rd letter, there is the gap of one alphabet. i.e. B, D, F, H, J, L, N ...1st letterACEGIKM2nd letter12345673rd letterBDFHJLNTherefore, the sequence will be: A1B, C2D, E3F, G4H, I5J, K6L, M7N.17. $777, 666, 555,444, \underline{333}, \underline{222}, \underline{111}$Here, the pattern is as following:From 1st digit to 3rd digit, there is the gap of one digit in decreasing manner. i.e. 777, 666, 555, 444, 333, 222, 1111st digit76543212nd digit76543213rd digit7654321Therefore, the sequence will be: 777, 666, 555, 444, 333, 222, 111.18. Given series: 13, 24, 46, 90, 178, ?.24 – 13 = 1146 – 24 = 2290 – 46 = 44178 – 90 = 88The logic used here is that the difference between two successive numbers is doubled consecutively.So, if 88 is doubled, we get 176.Hence, 178 + 176 = 354.Thus, the missing term in the sequence is 354.Therefore, the complete series is 13, 24, 46, 90, 178, 354.19. The given sequence is obtained as follows:$2^3-2^2=8-4=4$$3^3-3^2=27-9=18$$4^3-4^2=64-16=48$$5^3-5^2=125-25=100$$6^3-6^2=216-36=180$$7^3-7^2=343-49=294$$8^3-8^2=512-64=448$Hence, the missing number in the series is 48.Therefore, the complete series is $4,18, \underline{48},100,180,294,448$.20. ZA, YB, XC, WD, VE, UF, TG, SHIf we pay attention to the English alphabet, then we will find that the first character of this series is the alphabet starting from the back of the English,Z,Y,X,W,V,T,S.....and the second letter starts from the beginning.A,B,C,D,E,.....Importance of Class 5 Maths Chapter 7 Worksheet On PatternsPatterns are the heart and soul of Maths and are crucial to our understanding of the world around us. Patterns help children in expanding their fundamental idea into a variety of spheres and gain the ability to use reasoning skills and make logical connections.As per research, when children learn and explore the concept of patterns, it lays the foundation for more complex numbers and mathematical operations in later years.You can become a strong mathematician by creating, naming, and extending patterns.You can make predictions based on your observations once you gain the capability to create and recognize patterns.By learning patterns, you can identify relationships and develop generalisations.Patterns exist not only in Maths but also in music, nature, literature, and art. Patterns give us a sense of order in an otherwise chaotic world.We can make educated guesses, hypotheses, and assumptions by understanding recurring patterns. This further helps in developing essential skills like logic and critical thinking.The knowledge of patterns opens many doors as it can be applied and transferred into almost all curriculum areas.Patterns are also the basis of algebra as it involves a lot of data analysis which has a strong relationship with pattern understanding. One can help endangered species by understanding their reproduction patterns.Patterns in weather can also predict the weather for a week, which helps in taking appropriate measures in emergency situations.Examples of Class 5 Maths Chapter 7 Worksheet - Can You See PatternsThe chapter on patterns in Class 5 has exercises on different types of patterns such as shapes, numbers, words, etc. Some of them are illustrated below:1. Which number comes next?2, 4, 6, 8,?1, 3, 5, 7,?3, 9, 27, 81,?2. Which shape will come next? 3. Fill in the blanks:40 * ___ = 20 * __30 + ___ + 15 = 25 + 20 + __4. Identify the missing term in the series:A, C, B, D, C, E,?5. Which pair of letters would replace the question mark?AP, CO, EN, GM, IL, ?A Few Interesting Facts about Maths Patterns for Class 5Fibonacci series is a type of complex pattern where the first two numbers are 0 and 1, and after that, the series is formed by adding the two numbers prior to the current one.Design patterns are applicable in Computer Science, where they help in providing solutions to common problems in designing software.Pareidolia is a Greek word that describes a phenomenon where humans can see patterns even when there are none.Pascal's triangle exhibits many patterns and properties, such as the number of odd numbers in the nth row of the triangle is equal to 2 raised to the power of the number of ones in the binary expansion of n.In 1968, Donovan Johnson, the president of the National Council of Teachers of Mathematics, wrote an article where he compared a musical composition to Maths because the patterns and logic in Maths fit together like pieces of a song.Important Topics of Number Patterns in Maths for Class 5Learn patterns in different forms.Learn how a pattern looks when rotated at an angle of 90 degrees.Identify how a pattern changes through clockwise movements.Understand how a pattern can be divided into stages and have rules associated with it.Complete practice exercises on all the different types of patterns presented in the chapter.Learn how to multiply in a fun way through magic hexagons.Can You See the Pattern Class 5 Worksheets PDF - Grab Your Free CopyVedantu has a stellar team of experts who have in-depth knowledge through extensive research and have formulated all the patterns in an easily comprehensible manner.The PDF has many solved examples and practice exercises on different pattern types, which will give ample practice to students so that they can solve all sorts of problems pertaining to patterning.The content of Vendatu's website adheres to the CBSE curriculum, and the team is always up to date with the latest changes. Hence, it is a valuable resource for students to ace their Maths exams.The PDF can be downloaded on your device for a quick reference on the go.You could also print the PDF and carry it with you to go through all the formulas before your exam.Patterns form the basis of numeracy skills and are crucial in understanding numbers and Maths. By mastering this concept through a well-explained Can You See The Pattern Class 5 Worksheets PDF by Vedantu, students can rest assured of solving any complex problem on this topic. This is Mathematics Class 5 Patterns and Symmetry CBSE Questions & Answers. There are 15 questions in this test with each question having around four answer choices.Q.1) Find the next number in pattern. Correct Answer: OQ.2) Find the next number in pattern. Correct Answer: 75Q.3) Find the next number in pattern. Correct Answer: 505Q.4) Find the next figure in pattern. Q.5) {tex}{\text{ORANGE}} \to {\text{RANG}} \to{/tex} _____ ?Correct Answer: ANQ.6) Complete the pattern: 32, 40, 48, 56, ___, ___Correct Answer: 64, 72Q.7) Complete the pattern: 7, 21, 35, 49, ___, ___Correct Answer: 63, 77Q.8) Complete the pattern: 100, 80, 60, 40, ___, ___Correct Answer: 20, 0Q.9) Complete the pattern: 18, 38, 58, 78, ___, ___88, 10898, 10888, 9898, 118Correct Answer: 98, 118Q.10) Complete the pattern: 234, 345, 456, 567, ___, ___678, 789567, 678678, 8910678, 698Correct Answer: 678, 789Q.11) Complete the pattern: 101, 103, 107, 109, ___, ___113, 115117, 120113, 117110, 112Correct Answer: 113, 117Q.12) Complete the pattern: Q.13) Complete the pattern: Q.14) Complete the pattern: Q.15) Complete the pattern: < Go to Homepage Subscribe to our YouTube channel for the latest videos, updates, and tips. In 5th grade Pattern worksheet, students can practice the questions on shapes and patterns. The questions are based on progressive patterns, number patterns, triangular numbers patterns, square numbers patterns. I. Complete the given pattern:(i) 5, 20, 10, 30, 15, 40, ..., ..., ...(ii) 1, 3, 5, 7, 11, ..., ..., ...(iii) 5, 8, 11, 14, 17, ..., ..., ...(iv) 6, 95, 7, 90, 8, 85, ..., ..., ...(v) 1, 5, 25, 125, ..., ..., ...(vi) 800, 400, 200, 100, ..., ..., ...(vii) 2, 6, 18, 54, ..., ..., ...(viii) 1, 4, 9, 16, 25, ..., ..., ...(ix) 99999, 9999, 999, ..., ... (x) A, Z, BB, YY, CCC, ..., ..., ...II. Draw the next figure to complete the pattern: III. Complete the given Sudoko: IV. Complete the given Sudoko: Answers:I. (i) 20, 50, 25 (ii) 13, 17, 19 (iii) 20, 23, 26 (iv) 9, 80, 10 (v) 625, 3125, 15625 (vi) 50, 25, 12.5 (vii) 162, 486, 1458 (viii) 36, 49, 64 (ix) 99, 9 (x) XXX, DDDD, WWWWII. III. IV. Math Patterns Math Homework Sheets From 5th Grade Pattern Worksheets to HOME PAGE Didn't find what you were looking for? Or want to know more information about Math Only Math. Use this Google Search to find what you need. Share this page: What’s this? NCERT Solutions Class 5 Maths Chapter 7 Can You See The Pattern is provided here by our subject experts for primary students to practise well for their exams. The NCERT Solutions are prepared as per the CBSE syllabus (2023-2024) prescribed for Class 5. NCERT solutions Class 5 books are simple maths books written for 5th-grade students. The NCERT (National Council of Educational Research and Training) is an independent concern which was set up in the year 1961 by the Indian Government to aid and advise the State and Central Governments on strategies to improve the quality of education. Refer to the NCERT Solutions for Class 5 Maths to clarify any doubts instantly and attain a strong grip over key concepts. NCERT Solutions Class 5 Maths Chapter 7 Can You See the Pattern Download PDF carouselExampleControls112 Previous Next Access NCERT Class 5 Maths Chapter 7 Can You See the Pattern Page: 99 1. 2. What should come next? (a) Solution:- (b) Solution:- (c) Solution:- (d) Solution:- 3. See this pattern (a) Solution:- 4. Using the same rule, take it forward till you get back to what you started with. (a) Solution:- (b) Solution:- Solution:- 6. Mark that picture which is breaking the rule. Also, correct it. (a) Solution:- The below-marked picture breaks the rule. (b) Solution:- The below-marked picture breaks the rule. (c) Solution:- The below-marked picture breaks the rule. (d) Solution:- The below-marked picture breaks the rule. 7. Magic Squares Do you remember magic triangles? Come now, let’s make some magic squares. (i) Fill this square using all the numbers from 46 to 54. Rule: The total of each line is 150. Solution:- From the question, it is given that the total of each line is equal to 150. So, let us take the third row. From the rule, + 52 + 47 = 150 + 99 = 150 = 150 – 99 Therefore, the number in the first box in the third row = 51 Now, let us take the first column. From the rule, + 46 + 51 = 150 + 97 = 150 = 150 – 97 Therefore, the number in the first box in the first column = 53 Let us take the first row. From the rule, 53 + + 49 = 150 + 102 = 150 = 150 – 102 Therefore, the number in the second box in the first row = 48 Let us take the second column. From the rule, 48 + + 52 = 150 + 100 = 150 = 150 – 100 Therefore, the number in the second box in the second column = 50 Let us take the third column, From the rule, 49 + + 47 = 15 + 96 = 150 = 150 – 96 Therefore, the number in the second box in the third column = 54 (ii) Fill this square using all the numbers from 21 to 29. Rule: The total of each side is 75. Solution:- From the question, it is given that the total of each line is equal to 75. 8. Magic Hexagons Look at the patterns of numbers in hexagons. Each side has 2 circles and 1 box. Look at the number 65 in the box. Which are the circles next to it? Can you see how the rule works? Solution:- The circles next to 65 are 5 and 13. The rule of this method is we get the number in each box by multiplying the numbers in the circles next to it. (i) Use the same rule to fill the hexagons below. (a) Solution:- 11 × 9 = 99 11 × 6 = 66 6 × 17 = 102 17 × 7 = 119 9 × 12 = 108 12 × 7 = 84 (b) Solution:- 4 × 16 = 64 16 × 8 = 128 8 × 8 = 64 13 × 8 = 104 13 × 6 = 78 9. Numbers and Numbers (i) Are they equal? Solution:- Yes, the mentioned equation are equal. Let us consider the left-hand side (LHS) of the first equation = 24 + 19 + 37 LHS = 80 Now, the right-hand side (RHS) = 37 + 24 + 19 RHS = 80 By comparing LHS and RHS, LHS = RHS Then, consider second equation, LHS = 215 + 120 + 600 LHS = 935 Now, RHS = 600 + 215 + 120 = 935 By comparing LHS and RHS, LHS = RHS (ii) Fill in the blank spaces in the same way. (a) Solution:- (b) Solution:- (c) Solution:- (iii) Now, look at this – Check if it is true or not. Solution:- First, consider the left-hand side (LHS) = 48 × 13 LHS = 624 Now, consider the right-hand side (RHS) = 13 × 48 RHS = 624 By comparing LHS and RHS, LHS = RHS (iv) Now, you try and change these numbers into special numbers. (a) 28 Solution:- Take another number 28 Now, turn it back to front 82 Then, add them together 110 Is this a special number? No! Why not? OK, carry on with the number 110 Again, turn it back to front 011 Then add the two together 121 Ah! 121 is a special number. (b) 132 Solution:- Take another number 132 Now, turn it back to front 231 Then add them together 363 Ah! 363 is a special number. (c) 273 Solution:- Take another number 273 Now, turn it back to front 372 Then add them together 645 Is this a special number? No! Why not? OK, carry on with the number 645 Again, turn it back to front 546 Then add the two together 1191 Is this a special number? No! Why not? OK, carry on with the number 1191 Again, turn it back to the front 1911 Then add the two together 3102 Is this a special number? No! Why not? OK, carry on with the number 3102 Again, turn it back to the front 2013 Then add the two together 5115 Ah! 5115 is a special number. (v) Now, let’s use words in a special way. Did you notice that it reads the same from both sides – right to left and left to right? Solution:- EYE, LEVEL, ROTATOR, NOON, REFER, TOP SPOT etc. 10. Some more Number Patterns (i) Take any number. Now, multiply it by 2, 3, 4 ..... at every step. Also, add 3 to it at each step. Look at the difference in the answer. Is it the same at every step? Solution:- Let us check difference in the answer, 39 – 27 = 12, 51 – 39 = 12, 63 – 51 = 12, 75 – 63 = 12, 87 – 75 = 12, 99 – 87 = 12, 111 – 99 = 12 Therefore, the difference in the answer is the same at every step. (ii) Look at the numbers below. Look for the pattern. Can you take it forward? Solution:- 11. Smart Adding Solution:- (ii) Did you notice some pattern in the answers? Solution:- Yes, I found that the difference in the answer is the same, i.e., 100 at every step. 12. Fun with Odd Numbers Take the first two odd numbers. Now, add them, and see what you get. Now, at every step, add the next odd number. How far can you go on? Solution:- We can’t predict because there are infinite numbers. 13. Secret Numbers Banno and Binod were playing a guessing game by writing clues about a secret number. Each tried to guess the other’s secret number from the clues. Can you guess their secret numbers? (i) It is larger than half of 100 It is more than 6 tens and less than 7 tens The tens digit is one more than the ones digit Together, the digits have a sum of 11 Solution:- It is larger than half of 100, i.e. number > 100 It is more than 6 tens and less than 7 tens, so the number lies between 70 and 60 The tens digit is one more than the ones digit = 6 – 1 = 5 Together, the digits have a sum of 11 = 6 + 5 = 11 Therefore, the number is 65 (ii) It is smaller than half of 100 It is more than 4 tens and less than 5 tens The tens digit is two more than the ones digit Together, the digits have a sum of 6 Solution:- It is smaller than half of 100 = number > 100 It is more than 4 tens and less than 5 tens = number lies between 40 and 50 The tens digit is two more than the ones digit = 4 – 2 = 2 Together, the digits have a sum of 6 = 4 + 2 = 6 Therefore, the number is 42 14. Number Surprises a) Ask your friend to write — W down your age. Add 5 to it. Multiply the sum by 2. Subtract 10 from it. Next, divide it by 2. What do you get? Is your friend surprised? Solution:- Let us assume the age is 11. Then, adding 5 to it, we get = 16 Multiply by 2, we get = 32 Subtract from 10, we get = 22 Divided by 2, we get = 11 Yes, my friend was really surprised. Solution:- Solution:- Solution:- 1 = 1 × 1 121 = 11 × 11 12321 = 111 × 111 1234321 = 1111 × 1111 123454321 = 11111 × 11111 12345654321 = 111111 × 111111 1234567654321 = 1111111 × 1111111 1234567654321 = 1111111 × 1111111 Special numbers/words which read the same both ways are called palindromes. Examples: “STEP NOT ON PETS” and ‘9876789’.In Chapter 7 of NCERT Solutions for Class 5 Maths, the sum of the first n odd numbers is calculated as (n x n). This is applicable for any number of first n odd positive integers.To identify the patterns for a given block, there are three different rules to turn it clockwise, and they are: 1. Repeat it with a one-fourth turn. 2. Repeat it with a half-turn. 3. Repeat it with a three-fourth turn. In this post, you will find 20 online maths quiz questions for class 5 patterns and symmetry. Online maths quiz for class 5 patterns and symmetry will take around 15 minutes or less to complete it. Question 1: Complete the following pattern: 1, 2, 4, 8, 16, _____ Explanation: 1 × 2 = 2, 2 × 2 = 4, 4 × 2 = 8, 8 × 2 = 16, 16 × 2 = 32. Question 2: Complete this pattern: 3, 9, 27, 81, 243, _____ Explanation: 3 × 3 = 9, 9 × 3 = 27, 27 × 3 = 81, 81 × 3 = 243, 243 × 3 = 729. Question 3: Complete the pattern: 2, 6, 10, 14, 18, _____ Explanation: 2, 2 + 4 = 6, 6 + 4 = 10, 10 + 4 = 14, 14 + 4 = 18, 18 + 4 = 22. Question 4: Complete the pattern: 5, 15, 25, 35, 45, _____ Explanation: 5, 5 + 10 = 15, 15 + 10 = 25, 25 + 10 = 35, 35 + 10 = 45, 45 + 10 = 55. Question 5: Complete the given pattern: 2, 3, 5, 9, 17, _____ Explanation: 2, 2 + 1 = 3, 3 + 2 = 5, 5 + 4 = 9, 9 + 8 = 17, 17 + 16 = 33 Question 6: Complete the given pattern: 100, 91, 83, 76, 70, 65, _____ Explanation: 100 – 9 = 91, 91 – 8 = 83, 83 – 7 = 76, 76 – 6 = 70, 70 – 5 = 65, 65 – 4 = 61. Question 7: Complete the following pattern: 1A1, 2B2, 3C3, 4D4, 5E5, _____ Explanation: 1A1, 2B2, 3C3, 4D4, 5E5, 6F6. Question 8: Fill in the blank with triangular number: 1, 3, 6, 10, 15, _____, 28, 36 Explanation: 1, 3, 6, 10, 15, 21, 28, 36. Question 9: Fill in the blank with square number: 1, 4, 9, 16, 25, _____, 49, 64 Explanation: 1, 4, 9, 16, 25, 36, 49, 64. Question 10: Fill in the blank with cubic number: 1, 8, 27, 64, _____, 216, 343 Explanation: 1, 8, 27, 64, 125, 216, 343. Question 11: What is the tenth triangular number? Explanation: Tenth triangular number = 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 = 55 Question 12: What is the tenth square number? Explanation: Tenth square number = 10 × 10 = 100 Question 13: Which of the following is symmetrical? Explanation: Mobile is symmetrical. Question 14: Which of the following shapes is not symmetrical? Explanation: Mug is not symmetrical. Question 15: How many lines of symmetry are there in a square? Explanation: Square has 4 lines of symmetry. Question 16: How many lines of symmetry are there in an equilateral triangle? Explanation: An equilateral triangle has 3 lines of symmetry. Question 17: If you turn a square in clockwise direction, it will look the same after a _____ turn. Explanation: If you turn a square in clockwise direction, it will look the same after quarter turn. Question 18: The letter N looks the same after _____ turn. Explanation: The letter N looks the same after half turn. Question 19: Which shape has infinite number of lines of symmetry? Explanation: A circle has infinite number of lines of symmetry. Question 20: Which shape has exactly one line of symmetry? Explanation: An angle has exactly one line of symmetry. Question: 5, 10, 15, 20, _____a) 25b) 35c) 30Answer: 25Question: 8, 16, 24, 32, _____a) 40b) 45c) 46Answer: 40Question: 1, 3, 7, 15, _____a) 31b) 63c) 84Answer: 31Question: A1, B2, C3, D4, _____a) E5b) F5c) G5Answer: E5Question: 26, 23, 20, 17, _____a) 14b) 11c) 13Answer: 14Question: 1, 3, 9, 27, 81, _____a) 243b) 363c) 741Answer: 243Question: a) none of theseb)c)Answer: none of theseQuestion: a)b)c)Answer:Question: a)b)c)Answer:Question: 1, 4, 9, 16, _____a) 25b) 49c) 36Answer: 25Question: 1, 8, 4, 11, 7, _____a) 14b) 3c) 5Answer: 14Question: 1, 8, 27, 64, _____a) 125b) 325c) 25Answer: 125Question: Which of the following is a triangular number?a) 25b) 4c) 6Answer: 25Question: 1+2+3 is a _____ (sum)a) none of theseb) square numberc) triangular numberAnswer: none of theseQuestion: 1+3+5 is a _____ (sum)a) square numberb) none of thesec) triangular numberAnswer: square numberQuestion: 16, 25, 36, 49,_____a) 64b) 100c) 81Answer: 64Question: 1, 3, 6, 10, _____a) 15b) 25c) 26Answer: 15Question: Which of the following is a square number?a) 16b) 18c) 15Answer: 16Question: Which of the following is not a triangular number?a) 5b) 15c) 6Answer: 5Question: Which of the following is not a square number?a) 72b) 81c) 64Answer: 72Question: a)b)c)Answer:Question: a)b)c)Answer:Question: a)b)c) bothAnswer:Question: 1×1=1, 2×2=4, 3×3=9, _____.a) 4×4=16b) 4×4=20c) 3×4=12Answer: 4×4=16