



Grade 1

SAMPLE QUESTIONS





Q3. What is the smallest 2-digit odd number with different digits?



ANSWER

Q4. Find and answer if

$$23 + 34 + 45 + 56 + 67 + 78 + 89 - 100$$

will result in an Odd or Even number.

ANSWER

Q5. Pawan is thinking of a number **A**. If he adds 27 to **A**, he will get 45. What will Pawan get if he subtracts 8 from **A**?

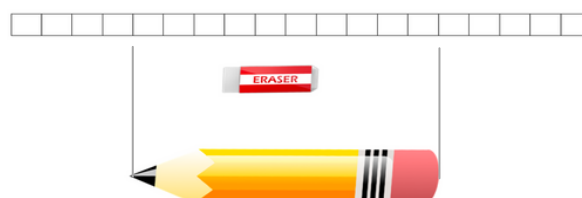


ANSWER

Q6. Observe the diagram below carefully.

How much longer in units is the pencil than the eraser if their (pencil + eraser) total length is 13 units?

☐ = 1 unit



ANSWER



Q10. Bobby started studying for his exam at 7:15 am in the morning on Sunday. He has to study two subjects Math and English. He studies each subject for 45 minutes and takes a break of 15 minutes in between both the subjects.

At what time does Bobby finish his studies?

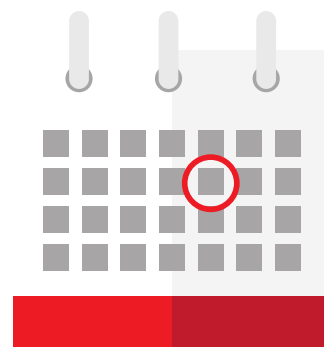
(Give your answer in the form of HH:MM A.M. / P.M.)



ANSWER

Q11. In a leap year (Year with 366 days and 29 days in February), 1st January is Wednesday.

Which Day will appear 5 times on the calendar of February of that year?



ANSWER



Grade 2

SAMPLE QUESTIONS





Q5. Mary has 14 more toys than Lisa who has 17 Toys.

Altogether they have ____ toys.



ANSWER

Q6. Anita is 9th from the front in the line in her school library to collect a book. Samir is 12th from the back in the same line. If there are 15 students in the line, **how many children are standing in between Anita and Samir.**



ANSWER

Q7. Form two 2-digit numbers using 1,2,3,4 without repeating any digits and using all these digits once only.

What will be the minimum difference of such numbers?

ANSWER

Q8. In some year January has 3 Sundays on dates which are even numbers. Bob's Birthday is on 20th January.

On which Day is Bob's birthday?

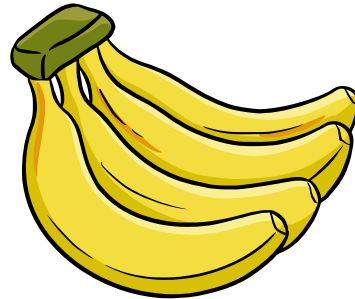


ANSWER



Q12. You get bananas at 40 Rs a dozen (12 bananas) and loose bananas 5 Rs each.

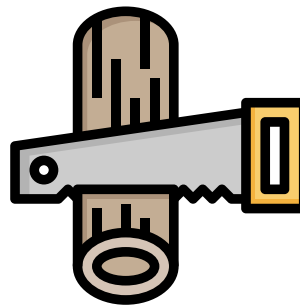
If you have 90 Rupees, at most how many bananas will you be able to buy?



ANSWER

Q13. Peter takes 16 minutes to saw a log into 9 smaller pieces.

How many pieces he could have cut the same log into if he takes 32 minutes if each cut (Sawing) takes the same time?



ANSWER

Q14. Teacher wishes to distribute all the candies she has equally to the students in her class. After giving 3 candies to each student, she is left with 4 candies and cannot distribute equally anymore.

At least how many candies did the teacher have in the beginning?



ANSWER

Q15. At a farm, there are 4 more ducks than the cows and the total number of duck's and cow's legs are 50.

How many ducks are there?



ANSWER



Grade 3

SAMPLE QUESTIONS





Q5. Mr. Kumar could buy a maximum of 65 Bananas for exactly rupees 100. Bananas are sold in dozens and loose at different rates per banana.

ANSWER

If each loose banana costs 2 rupees, how many more bananas he could have bought if he had spent 50 rupees more?

Q6. Betty's house is 5 km away from Anna's house on MG Road. Chris's house is 7 Kms. from Betty's house on the same road which is a straight road.

What would be difference in Kms between the maximum and minimum possible distances of Anna's and Chris's houses?



ANSWER

Q7. If there are 20 lamp posts along a street at equal distance to each other and the distance between first and last one is 190m, what's the distance between the 3rd and the 10th one in meters?

ANSWER

Q8. The sum of the father and the son's age is 60 years. The father's age was 3 times the son's age 8 years ago.

How old is the son now?



ANSWER



Q13. Alicia, Betty and Chloe have 90 books altogether. If Betty borrows 3 books from Alicia and lends 5 books to Chloe, the three girls will have the same number of books in the end.

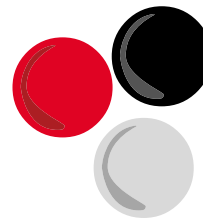
How many more books did Alicia and Betty together had than Chloe in the beginning?



ANSWER

Q14. A basket contains some white, red and black balls. There are 15 white and red balls altogether. There are 18 red and black balls in total. The sum of number of black and white balls is 9.

Find the number of Red balls.



ANSWER

Q15. 1 table and 3 identical chairs cost \$120. The table costs 5 times as much as each chair.

What will be the cost of 2 tables and 10 such chairs?



ANSWER

Q16. The places of birth of Cindy, Eleanor and Daisy are Indonesia, Thailand and Brunei but not necessarily in that order. Cindy has never been to Indonesia. Eleanor was not born in Thailand. Daisy has never been to Thailand or Brunei.

Where was Cindy Born?



ANSWER



Grade 4

SAMPLE QUESTIONS





Q6. Dhawal is 4 times the age of his son at present. Ten years back the sum their ages of was 40.

After how many years from now Dhawal will be double the age of his son?



ANSWER

Q7. The seats in a class are arranged in rectangular form with rows and column. Anita can see 3 students to her right and 4 students to her left in the same row. Anita is in the 5th row from front and she has 2 students sitting behind her in the same column.

If all the seats are full then how many students including Anita are there in the class?



ANSWER

Q8. Jitendra started from home at 0715 hours for school by bicycle and he reached school at 0755 hrs. On his way back from school in the afternoon, exactly at midway his bicycle's tyre punctured. He decided to walk it down for the remaining journey back home.

If he cycles 3 times as fast as he walks, how much total time in minutes did he take to reach from school to home? (Assume that he cycles at same speed all the time).



ANSWER

Q9. A large square is divided into 9 equal squares.

If the area of each small square is 16 square units, then how many units is the perimeter of the original large square?

ANSWER



Q14. A book has 250 pages.

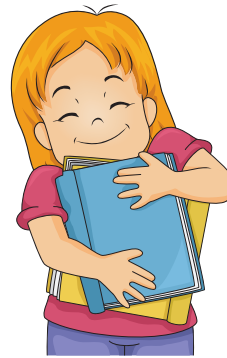
How many digits are used in the printing of its page numbers?



ANSWER

Q15. Alisha Used \$4 to buy a comic book. She used half of the remaining money to buy a magazine. Lastly, she used \$1 more than half of the remaining money to buy the pen. She was left with \$5.

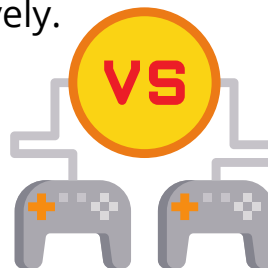
How much money had Alisha at first?



ANSWER

Q16. Five teams A, B, C, D & E are playing a tournament where at a league stage every team has to play every other team once. Sometime mid-way of the league, so far A, B, C and E have 3, 2, 4 and 1 games respectively.

How many games has Team D played?



ANSWER

Q17. In a month of August some year there are 5 Sundays and 4 Tuesdays and 2nd Monday falls on an Odd numbered date, what day is 1st of July in that year?



ANSWER



Grade 5

SAMPLE QUESTIONS





Q6. Jonathan multiplies the month of his birthday by 31. He then multiplies the date of his birthday by 12. The sum of the two products is 213.

ANSWER

When is Jonathan's Birthday ? Give your answer in the format of eg. 02 July

Q7. In how many ways 19 apples can be divided into 3 identical baskets so that at least one of the baskets has an odd number of apples?

ANSWER

Every basket needs to have at least 1 apple and no two baskets should have the same no. of apples.

Q8. There are two 3-digit numbers. In each number, the digits face values are in the ratio of 1:2:3 but not necessarily in the same order.

ANSWER

What would be the maximum difference of these two 3-digit numbers.

Q9. Form two of 2-digit numbers using 1,2,3,4 without repeating any digits and using all of them once.

ANSWER

What will be the minimum product of these two numbers?



Q14. Babita can order a french fries or a soft drink or both with her burger. There are 4 kinds of burgers, 2 varieties of french fries and 3 types of soft drinks to choose from.

ANSWER

How many different combinations are there for Babita to choose from for her order of a burger meal (at least 2 items in the meal)?

Q15. 16 unit squares (1×1) are joined to make a rectangular figure. Then they are taken apart and again joined to make a square.

ANSWER

Find the maximum possible difference of the perimeters of these two shapes.

Q16. There are 3 different points on each of two parallel lines.

ANSWER

How many different triangles can be formed using the dots as the vertices of the triangles?

Q17. You gave 3 more than half of your toys to your sister and now the total toys both of you have is 25 and she has 9 more than you.

ANSWER

How many more toys than her did you have in the beginning?



Grade 6

SAMPLE QUESTIONS





Q5. $\frac{2}{5}$ students of the class are boys. Exactly 75% students of the class like Math.

ANSWER

If 21 girls like Math, find the difference between the possible maximum and minimum number of students in the class?

Q6. Ahana and Beena have some pocket money saved. Ahana has \$10 more than half of the total pocket money between them.

ANSWER

How much more money in \$ should Beena get from her parents if she wants to have \$5 more than half of total amount they will have altogether?

Q7. A square shape is divided into two non-overlapping rectangular shapes. Each of these two rectangular shapes is divided into three non-overlapping square shapes.

ANSWER

Compute the sum of the perimeters of these six squares (in feet) if the perimeter of the original square is 60 feet. (The perimeter of a square is the sum of the lengths of all of its sides.)

Q8. In 2019, a long row of trees was planted in the empty GOA park. In 2020, a tree was planted between every two adjacent (next to each other) trees planted in the previous year. In 2021, a tree was planted between every two adjacent trees planted in the previous years, bringing the total number of trees in GOA Park to 877.

ANSWER

How many trees were planted in GOA Park in 2020?



Q13. Find the sum of perimeters of all rectangles whose sides are integer lengths and area is 24 square units.

ANSWER

Q14. A train runs at 150 m per second and another train runs at 120 m per second. They start at the same time from two different stations and travel towards each other.

ANSWER

If they cross each other 30 kms away from the mid- point of the distance of the two stations, how far are the two stations in kms?

Q15. The difference of two numbers is 182, and their quotient is 3 (i.e. when one number is divided by the other, the answer is 3). Find the sum of the two numbers.

ANSWER

Q16. A rectangular floor of 1584 cm by 1134 cm is to be covered completely by identical square tiles.

ANSWER

What is the greatest possible length of the tiles in cm?

Q17. If 91 or 107 or 131 are divided by a number N the remainder is same R.

ANSWER

What is the maximum value of N?



Grade 7

SAMPLE QUESTIONS





Q5. A car moved 1 second at a constant rate of 2 m/sec, then 1 second at a constant rate of 4 m/sec, then 1 second at a constant rate of 6 m/sec, and so on. All movements were in the same direction.

ANSWER

In how many seconds would the total distance covered by the car be 110 meters?

Q6. Fatima drew a rectangle with side lengths that were whole numbers. The perimeter of the rectangle was a multiple of 7 and the area was a multiple of 9.

ANSWER

Compute the least possible perimeter of Fatima's rectangle.

Q7. How many different whole numbers are there containing only the digits 1 and/or 2 (each of these digits can be used one or more times or not at all) such that for each of these numbers, the sum of all of its digits equals seven?

ANSWER

Q8. Lokesh and Triloki each had several \$20 and \$50 bills. Lokesh gave Triloki several of his \$20 bills and got from him the same number of \$50 bills, and as a result of this exchange, the money was divided equally between the boys. If after that Triloki gives Lokesh all six remaining \$50 bills, each of the boys would have as much money as other one had originally.

ANSWER

How many \$20 bills did Lokesh give to Triloki?



Q13. 5 identical flowers are to be put into 3 different Vases. Each Vase should get at least 1 flower and all 5 flowers are to be put in the vases.

ANSWER

How many ways can the flowers be arranged in the different vases?

Q14. The least common multiple of 12, 15, 20, and k is 420.

ANSWER

What is the least possible value of the positive integer k ?

Q15. I climb half the steps in a staircase. Next I climb one-third of the remaining steps. Then I climb one-eighth of the rest and stop to catch my breath.

ANSWER

What is the least possible number of steps in the staircase?

Q16. What is the 100th digit to the right of the decimal point in the decimal form of $4/37$?

ANSWER



Grade 8

SAMPLE QUESTIONS





Q5. Govind and Meena have the same number of candies. If Govind gives Meena half of all his candies, and then Meena gives Govind half of all the candies she has at the moment, Govind would have 12 more candies than Meena.

ANSWER

How many candies do Govind and Meena have altogether?

Q6. Lambu and Chotu are friends. Every January 1st they get measured and they write down the date, Lambu's height, Chotu's height, their total height, and their height difference (the amount by which Lambu is taller than Chotu). From January 1st, 2020, to January 1st, 2021, Lambu grew 5%, Chotu grew 2%, their total height increased by 4%, and their height difference increased by X%.

ANSWER

Compute the value of X.

Q7. A Fruit drink is made from 25% pure fruit juice and the rest is water. A barrel contained some amount of this fruit drink, but then by mistake, 60 litres of water was added to the barrel.

ANSWER

How many litres of pure fruit juice must be added to the barrel to correct the mistake, so the barrel would again contain fruit drink with 25% pure fruit juice?

Q8. A factorial number is the product of all whole numbers from one through some whole number. For example, 720 is a factorial number because $720 = 1 \times 2 \times 3 \times 4 \times 5 \times 6$. Now let's say that a positive whole integer K is "interesting" if some factorial number ends in exactly K zeroes, and "boring" if no such factorial number exists. So the number 1 is interesting since the factorial number 720 ends in exactly one zero.

ANSWER

Find the sum of the six smallest boring numbers.



Q14. How many 4 digit numbers are there whose sum of digits is 7?

ANSWER

Q15. The squares of two consecutive positive integers differ by 67.

ANSWER

What is the smaller of the two integers?

Q16. Pihu can't quite read the board in her math class. She writes down the equation she reads on the board as $2x - 7 = 23$. She correctly solves the equation she wrote down, but is surprised to hear the teacher say the answer is 5 less than the answer Pihu found. When Pihu asks the teacher to check her work, the teacher says that Pihu copied the coefficient of x incorrectly (but copied everything else correctly).

ANSWER

What should the coefficient of x have been?

Q17. For a set of ten numbers, removing the largest number decreases the average by 1. Removing the smallest number increases the average by 2.

ANSWER

What is the positive difference between the largest and the smallest of these ten numbers?