

Markhor Junior Contest ® 2025

Elementary Level (Class V & VI)

Mathematics

Time Allowed 60 Minutes

There are 19 problems, graded as follows:

Questions 1-5 are 1 point each,

Questions 6-10 are 2 points each,

Questions 11-15 are 3 points each,

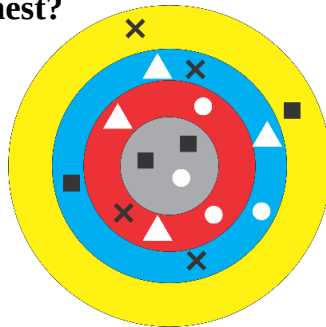
Questions 16-19 are 5 points each.

- 1. A square sheet of paper is cut into two parts using a single straight cut. Which of the following shapes is impossible to obtain as either of the resulting pieces?**
 - a) a square
 - b) a rectangle
 - c) a right-angled triangle
 - d) an isosceles triangle
 - e) None of the above
- 2. Emily intended to multiply a number by 229, but she accidentally left out the 2 and multiplied by 29 instead. She correctly got the result 348. What result should she have obtained if she had multiplied by 229 as planned?**
 - a) 2728
 - b) 5038
 - c) 2748
 - d) 4122
 - e) None of the above

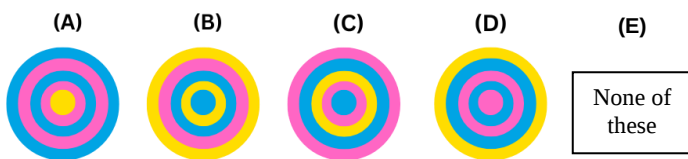
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3. Four students played an archery game. Yellow gives 10 points, blue 20, red 50, and grey 100. Each player had 4 shots, marked as: Player A – white circle, Player B – white triangle, Player C – black square, and Player D – black cross. Based on the scoreboard, which player scored the highest?

- a) Player A
- b) Player B
- c) Player C
- d) Player D
- e) None of the above



4. What would you see if you looked at this from the top?



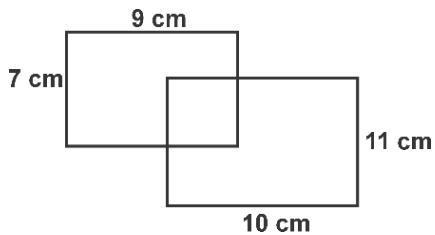
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- 5. Ali, Ben, Clara, and David are taking part in a health activity. Their body weights are all different and go in order from lightest to heaviest: Ali is the lightest, Ben is a bit heavier, Clara is next, and David is the heaviest. The doctor wants to add a little extra weight to just one of them. After that, the total effect on the group will be measured by multiplying all four weights together. To keep the total effect as small as possible, who should get the extra weight Ali, Ben, Clara, or David?**
- a) Ali
 - b) Ben
 - c) Clara
 - d) David
 - e) None of the above
- 6. A laptop is first marked up by 25% on its cost price. Later, a discount of 20% is offered on the new marked price. If the final selling price of the laptop is \$1200, what was the original cost price of the laptop**
- a) \$960
 - b) \$1000
 - c) \$1250
 - d) \$1500
 - e) None of the above
- 7. In a science exhibition, there are robots and toy cars. Each robot has 1 antenna, each toy car has 4 tyres the total number of car tyres is twice the number of robot antennas. What does this tell us about the number of toy cars compared to robots?**

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- a) Twice as many toy cars as robots.
b) Same number of toy cars and robots.
c) Half as many toy cars as robots.
d) One-fourth as many toy cars as robots.
e) None of the above
8. **Two flyers are placed on a notice board. One flyer measures 7 cm by 9 cm, and the other measures 10 cm by 11 cm. They overlap partially. The overlapping area is 42 square centimeters. What is the total area of the parts of the flyers that do not overlap.**

- a) 63 cm^2
b) 110 cm^2
c) 89 cm^2
d) 131 cm^2
e) None of the above



9. **A gardening club has 28 flowering plants and 16 leafy plants in its greenhouse. Each week, they add 5 more flowering plants and 7 more leafy plants. After a few weeks, the number of flowering and leafy plants becomes equal. How many plants of each type will there be at that time?**
- a) 56
b) 58
c) 60
d) 62
e) None of the above

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- 10. Eight friends are wearing shirts numbered 1 to 8. They are divided into two teams such that the sum of the shirt numbers in each team is the same. If one team has exactly 3 players, then which of the following must be true?**
- a) The number 1 is not in the team with 5 players.
 - b) The number 8 is in the team with 3 players.
 - c) The team with 5 players has at least two even numbers.
 - d) The number 2 is definitely in the team with 5 players.
 - e) None of the above
- 11. In a workshop, each tripod lamp has 3 legs, and each foldable table has 6 legs. There are 2 lamps and 3 tables in the room. Their total number of legs is equal to the number of legs on 4 stools and how many chairs, if each chair has 4 legs and each stool has 3 legs?**
- a) 1 chair
 - b) 2 chairs
 - c) 3 chairs
 - d) 4 chairs
 - e) None of the above
- 12. In a factory, there are two types of machines: Type A machines produce 1 gear per hour, Type B machines produce 1 gear every 3 hours. There are 4 Type A machines and 6 Type B machines, all working continuously**

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for 15 hours. How many gears are produced in total by all machines during this time?

- a) 70
- b) 80
- c) 90
- d) 100
- e) None of the above

13. In a craft workshop, each bracelet uses 4 red beads, and each keychain uses 2 red beads and 1 charm. By the end of the session, 32 red beads and 4 charms were used in total. How many items were made in total?

- a) 8
- b) 10
- c) 12
- d) 15
- e) None of the above

14. In an art class, students are designing posters. Each poster must include either 1 or 2 decorative elements. The available decorative elements are: stars, hearts, waves, and leaves. Posters also come in three different background colors: blue, green, or yellow. How many different types of posters can the students create?

- a) 18
- b) 25
- c) 30
- d) 36
- e) None of the above

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- 15. A maintenance robot logs the current date each day using the format DDMMYYYY for example, if today is October 22, 2025, it writes the number 22102025, and then adds all the digits: $2 + 2 + 1 + 0 + 2 + 0 + 2 + 5 = 14$ What is the maximum digit sum the robot can get from any valid date in the year 2025?**
- a) 25
 - b) 29
 - c) 31
 - d) 39
 - e) None of the above
- 16. Samar decided to read a novel over 5 days, starting on Wednesday and finishing on Sunday. Each day, she read 4 pages more than she did the previous day. By the end of Sunday, she had read a total of 100 pages. How many pages did Samar read on Saturday?**
- a) 18
 - b) 24
 - c) 28
 - d) 32
 - e) None of the above
- 17. Four children Riya, Zara, Hasan, and Leo shared a bag of candies. Each child got a different number of candies. Hasan received the least number of candies. The other three children received a total of 30 candies. What is the largest number of candies Hasan could have received?**

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- a) 7
- b) 8
- c) 10
- d) 12
- e) None of the above

18. In a game show, 16 people are standing in a circle. Each person has a number from 1 to 16, and no number is repeated. Everyone is wearing a badge — green if they always tell the truth, red if they always lie. Each person says, “My number is smaller than the numbers of both my neighboring contestants. What is the biggest number of people who could be wearing red badges?

- a) 10
- b) 12
- c) 14
- d) 15
- e) None of the above

19. A certain 3-digit number has an interesting property: When 198 is subtracted from it, the result is another 3-digit number with the same digits but in reverse order. How many such 3-digit numbers exist?

- a) 50
- b) 70
- c) 120
- d) 251
- e) None of the above