

2018 Chapel Hill MathFun Summer Camp Admission Evaluation

Question 1: $65 + 130 - 15 * 11 = \underline{\hspace{2cm}}$

Question 2: There are 10 children on a dance team. Everyone can either dance, sing or both. 7 can sing and 8 can dance. How many children can both dance and sing?

Question 3: Adam was trying to plant 7 flowers in his backyard. His mom asked him to plant those flowers in a way such that there are 6 rows with 3 flowers each. How should he do it?

Question 4: The next day, Adam went to a birthday party to celebrate Kate's 10 year birthday. Kate told him that she likes a particular shape and arranged 10 birthday candles in her birthday cake according to that shape. She also gave a clue to Adam that in that arrangement, there are 5 rows of candles with 4 in each. Adam thought about it for a while and smiled. What is the shape Kate likes?

Question 5: Ian wrote down 1, 2, 3, 4, ..., 100 for fun. How many 0s did he write?

Question 6: 10 locks and 10 keys. Each key can only open one of the locks. How many times do you need to try to match the locks and the keys?

Question 7: On a chessboard, we call a square region which has equal number of light and dark squares a balanced square. How many are those balanced squares?

Question 8: A tree is planted every 30 feet along a road. The road is 900 feet long. How many trees are planted?

Question 9: A street light is placed every 30 feet along a circular road. The road is 1200 feet long. How many lights are there?

Question 10: 100 adults and children ate 100 croissants. 1 adult ate 3 croissants. 3 children ate 1 croissant. How many children and how many adults?