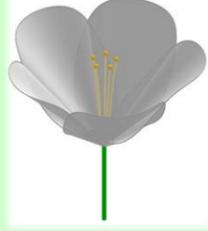
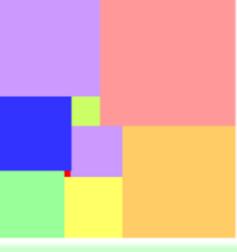
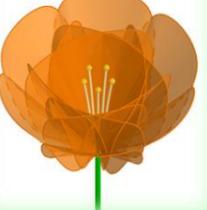
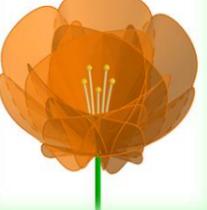


		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUN.
M A Y	2		3 Sisters Laia and Aitana write their ages, one after the other, and obtain a four-digit number that is the square of their father's age. Nine years later they rewrite their ages in the same way and it happens again that it is the square of their father's age. What is the age of Laia, Aitana and her father?	4 We have two hourglasses, one of 7 minutes and the other of 11 minutes. What is the fastest method to control the cooking of a stew that should last 15 minutes? 	5 	6 The town of Benirredrà has a very strange set of speed limits. One kilometre from the centre of town there is a sign that reads 120 km / h, ½ kilometre from the centre, a sign says 60 km / h, 1/3 of a km from the centre there is a sign that says 40 km / h, at ¼ km from the centre there is a sign that says 30 km / h, at 1/5 from the centre a warning of 24 km / h and at a distance of 1/6 of km the warning says 20 km / h. If you always travel at the speed limit, how long will it take to get to the centre of town from the first advertisement?	7 Find five consecutive integers such that the sum of squares of the first three equals the sum of squares of the last two 	1/8 
	9 A month ago 10% of a population had a disease and 90% did not. After the month, 10% of the sick people are cured and 10% of the people who did not have it became sick. What% of the population does not have the disease? 	10 	11 A horse and a mule walked together, carrying heavy sacks on their backs. The horse lamented his annoying burden, to which the mule said: What are you complaining about? If I took a sack from you, my burden would be double yours. On the other hand, if I give you a sack, your load will be equal to mine. How many bags does each carry?	12 An NGO sells 140 tickets to raise funds. Some tickets were sold at the original price (a whole), but the others were sold at half the initial price. € 2001 was raised. What is the starting price of the tickets? 	13 	14 At each station of a railway network, as many different tickets are sold as there are stations to which you can go or from which you can come (the outbound and return tickets are different). A new line with several stations is inaugurated and that forces to print 34 new tickets. How many stations were there and how many have been inaugurated?	15 	
	16 	17 Two players, A and B, take turns playing the following game: they have a pile of 2021 stones. On his first turn, A chooses a divisor of 2021 and removes that number of stones from the pile. Next, B chooses a divisor of the number of stones remaining and removes that number of stones from the pile, and so on. The player who removes the last stone loses. Show that one of the players has a winning strategy and describe that strategy.	18  In cuboland, the planets are cubes. Aitana has a 1 km edge. If its atmosphere is 500 m high at all points, what is the volume of the atmosphere?	19 	20 The selling price of a coat was 40% less than the manufacturer's suggested price. Laia bought the coat for half the sale price. By what percentage is the value Laia paid for the coat less than the manufacturer's suggested price?	21 	22 	
	23 Find, if possible, the natural greatest and least whose sum of digits is 2022 	24 	25 The rectangle in the figure is divided into nine squares. Calculate its height and its length knowing that the smallest square has a side 2 cm	26 A person has € 500 in a checking account at a bank. He can make two movements indefinitely, as long as he has money in the account: withdraw € 300 or deposit € 198. What is the maximum amount of money you can withdraw from account? 	27 	28 In the vertices of a quadrilateral a secret number is written in invisible ink and in visible ink the sum of the invisible numbers of the other three vertices. Can you give a rule to calculate the invisible numbers from the visible numbers? 	29 	
	30 	31 A basketball club has a men's section and a women's section. The arithmetic mean of the weight of the boys in the men's section is 90 kilos, the arithmetic mean of the weight of the girls in the women's section is 65 kilos. The arithmetic mean of the weight of all the members of the club is 75 kilos. Are there more girls than boys? What proportion of girls are there among all the players in the club? 						