

GRADE 6 - GRADE 7 - GRADE 8

MY END OF THE YEAR NOTEBOOK



ARE YOU READY?

In this book, you can find the following 2 games :

- Equations
- Calculate with monsters
- Happy birthday !
- The coded message
- The parking lot
- Logical sequences
- Chocolate cake
- Futoshiki
- Tectonic
- Takuzu

It's your turn to play, open this book to start !

Find the value of different elements.

Game #1

$$\text{Pear} + \text{Pear} + \text{Pear} = 27$$

$$\text{Pear} + \text{Apple} + \text{Apple} = 29$$

$$\text{Strawberry} = \text{Apple} - \text{Pear}$$

$$\text{Pear} + \text{Apple} + \text{Strawberry} = ?$$

$$\text{Pear} = ? \quad \text{Apple} = ? \quad \text{Strawberry} = ?$$

Game #2

$$\text{Monkey} + \text{Monkey} + \text{Monkey} = 30$$

$$\text{Monkey} + \text{Cat} + \text{Cat} = 20$$

$$\text{Cat} + \text{Rooster} + \text{Rooster} = 9$$

$$\text{Cat} \times \text{Monkey} - \text{Rooster} = ?$$

$$\text{Monkey} = ? \quad \text{Cat} = ? \quad \text{Rooster} = ?$$

Game #3

$$\text{Red Star} + \text{Red Star} + \text{Red Star} = 18$$

$$\text{Blue Star} + \text{Blue Star} + \text{Red Star} = 14$$

$$\text{Orange Star} + \text{Orange Star} - \text{Blue Star} = 2$$

$$\text{Blue Star} + \text{Orange Star} \times \text{Red Star} = ?$$

$$\text{Red Star} = ? \quad \text{Blue Star} = ? \quad \text{Orange Star} = ?$$

Game #4

$$\text{Purple Heart} + \text{Red Heart} - \text{Purple Heart} = 17$$

$$\text{Black Heart} + \text{Black Heart} = 12 - \text{Green Heart}$$

$$\text{Black Heart} = \text{Green Heart}$$

$$\text{Black Heart} - 3 = \text{Red Heart}$$

$$\text{Purple Heart} = ? \quad \text{Red Heart} = ? \quad \text{Black Heart} = ? \quad \text{Green Heart} = ?$$

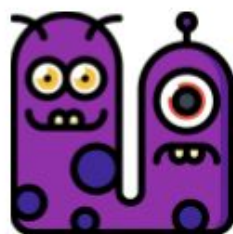
Game #5 : Complete this calculation.

1



1







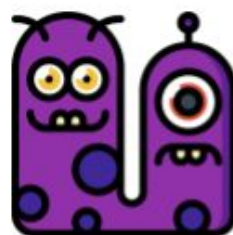


+











= 5



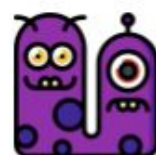
= ?



= ?



= ?



= ?

Game #6 : Find the value of each monster.

$$\text{Pink Monster 1} + \text{Pink Monster 1} = \text{Yellow Monster 1} = \text{Pink Monster 1} \times \text{Orange Monster 1}$$

$$\text{Pink Monster 2} + \text{Pink Monster 2} + \text{Pink Monster 2} = \text{Pink Monster 1} - \text{Pink Monster 2} = \text{Blue Monster 1}$$

$$\text{Yellow Monster 1} : \text{Orange Monster 1} = \text{Pink Monster 3} - \text{Pink Monster 2}$$

$$\text{Blue Monster 2} = \text{Orange Monster 1} \times \text{Blue Monster 1} = \text{Yellow Monster 2} - \text{Pink Monster 2}$$

$$\text{Pink Monster 4} = \text{Yellow Monster 2} + \text{Orange Monster 1} = \text{Blue Monster 1} \times \text{Blue Monster 1}$$

$$\text{Yellow Monster 1} = 8 \quad \text{Pink Monster 1} = ? \quad \text{Orange Monster 1} = ? \quad \text{Pink Monster 2} = ?$$

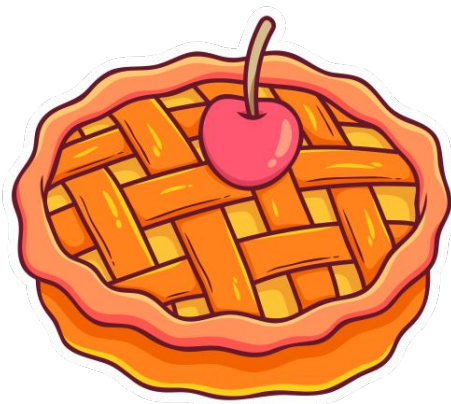
$$\text{Blue Monster 1} = ? \quad \text{Pink Monster 3} = ? \quad \text{Blue Monster 2} = ? \quad \text{Yellow Monster 2} = ?$$

$$\text{Pink Monster 4} = ?$$

Game #7 : For Chad's birthday, his big sister decided to bake him a cake; she hesitated between several recipes but finally, it will be a pie. To find out which fruit she wants to use, follow the instructions in the coded drawing.

On each row and each column, the numbers tell you how many neighboring squares you need to color. But be careful, the groups of darkened squares must be separated by one or more white squares.

	5	2 2	1 2	2 1	1 1	3 1	1 1 1	2 1	1 2	2 2	5
1											
1											
3 1 3											
2 5 2											
1 1											
1 1											
1 1											
2 2											
2 1 2											
3 3											



Game #8 : Discover the coded message.

SGD RHCDR NE Z

— — — — — — — — — — —

QGNLATR ZQD DPTZK

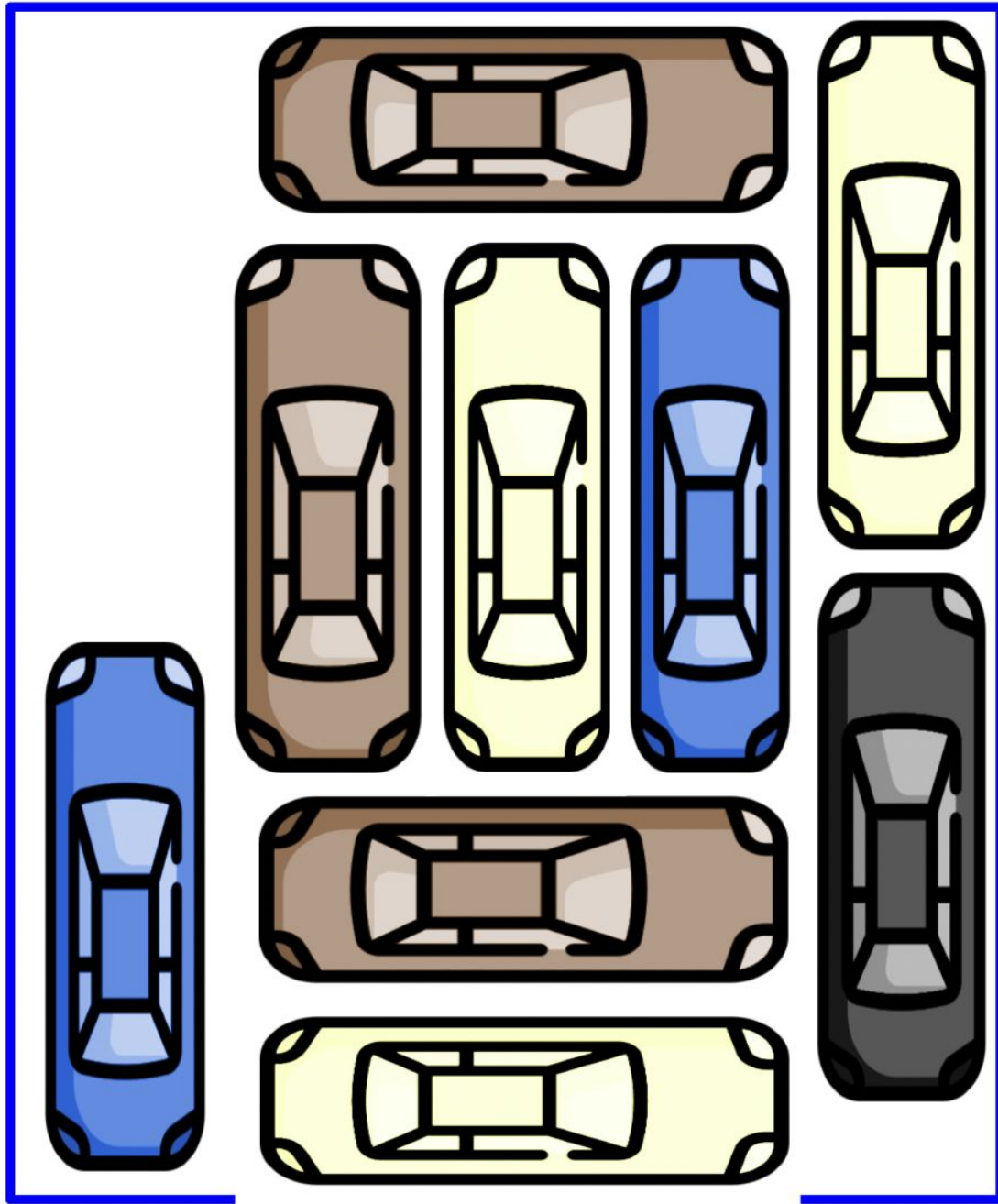
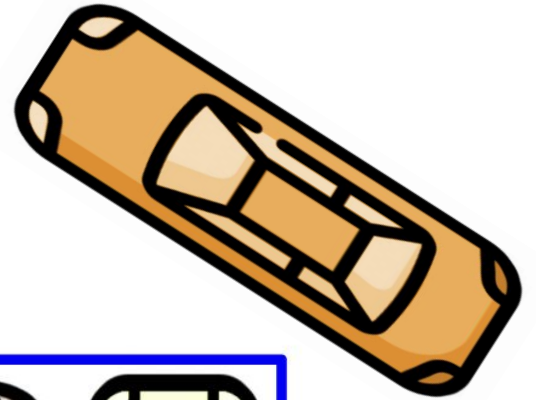
— — — — — — — — — — — — —

Game #9 : January 2, 2012 is Geoffrey's birthday : he is 12 years old. His cousin Oliver is a year and three days older than him. What day did Oliver turn 12 ?



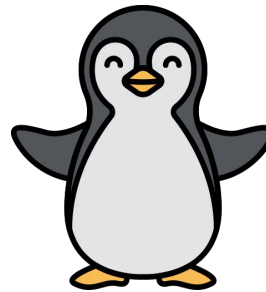
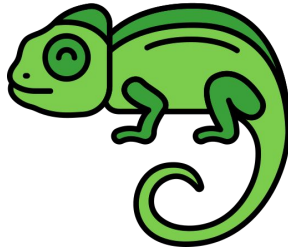
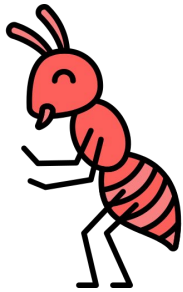
Your answer is _____

Game #10 : How many cars do we need to move to allow the orange car to park in this parking lot ?

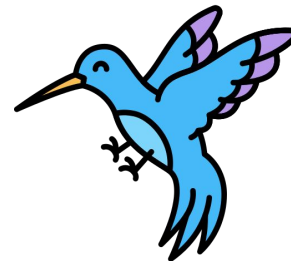
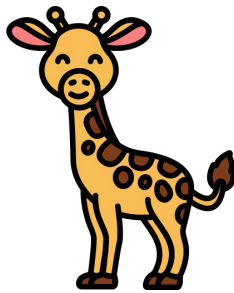
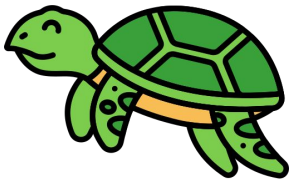


ENTER

Game #11 : Complete this logical sequence.

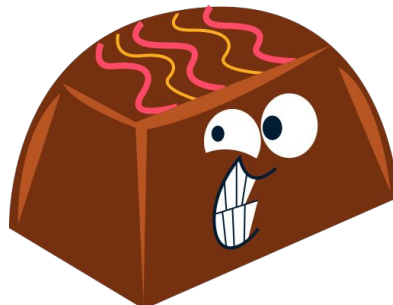


Among these 3 animals, which one to choose to complete this logical sequence ?



Game #12 : To make a chocolate cake for 6 people, Lauren uses 3 eggs, 8 oz of flour, 1 oz of butter and 6 oz of chocolate.

How much of each ingredient do you need to make the same cake for just 4 people ?



Your answer is _____

Game #13 : Each row and each column must contain the numbers from 1 to 7 only once. use the signs > and < less than.

	6		2	4		<	
		∨					∧
	7						
	∨	∧	∨				
						<	
	<	>	2			6	
					∨	∧	
			6			1	3
			∨		∧		
	<		>		2		
			∧		∧		
5	>	>		6			



Game #14 : Place the missing numbers in the grid knowing that a block of one box contains the number 1, a block of two boxes the numbers 1 and 2, a block of three boxes the numbers 1, 2 and 3... Two identical numbers cannot touch each other, even diagonally.

					4	1		
	2		5		5			
	5	1						
4				1	2			4
3		1		4		5		
					1			
3		1	3		5			
4		4				1		
								3
3		3					1	4
				5	2			



Game #15 : Fill the grid with Os and 1s so that each row and column contains as many Os as 1s. Two O's or two 1's can only touch diagonally. Identical rows and columns are prohibited.

	O	1		O			1	1		O	
			1		1						
	O					1		O		1	1
1					1						
		O		O			O			1	
	1			O		1			O		
O			1							1	
			1	1			O		1	1	
	O					1					
				O							1
	O	O						1			
		1			O	1					



ANSWERS

Game #1

$$\text{Pear} + \text{Apple} + \text{Strawberry} = 20$$

$$\text{Pear} = 9 \quad \text{Apple} = 10 \quad \text{Strawberry} = 1$$

Game #2

$$\text{Cat} \times \text{Monkey} - \text{Rooster} = 49$$

$$\text{Monkey} = 10 \quad \text{Cat} = 5 \quad \text{Rooster} = 1$$

Game #3

$$\text{Blue Star} + \text{Orange Star} \times \text{Pink Star} = 22$$

$$\text{Pink Star} = 6 \quad \text{Blue Star} = 4 \quad \text{Orange Star} = 3$$

Game #4

$$\text{Purple Heart} = 8 \quad \text{Red Heart} = 1 \quad \text{Black Heart} = 4 \quad \text{Green Heart} = 4$$

Game #5

$$\text{Pink Monster} = 5 \quad \text{Yellow Monster} = 9 \quad \text{Red Monster} = 2 \quad \text{Green Monster} = 6 \quad \text{Purple Monster} = 0$$

Game #6

$$\text{Green Frog} = 8 \quad \text{Pink Frog} = 4 \quad \text{Orange Fish} = 2 \quad \text{Pink Fish} = 1$$

$$\text{Blue Frog} = 3 \quad \text{Pink Frog} = 5 \quad \text{Blue Frog} = 6 \quad \text{Green Frog} = 7$$

$$\text{Pink Frog} = 9$$



ANSWERS

Game #7

	5	2 2	1 2	2 1	1 1	3 1	1 1 1	2 1	1 2	2 2	5
1											
1											
3 1 3											
2 5 2											
1 1											
1 1											
1 1											
2 2											
2 1 2											
3 3											

Game #8

Replace each letter in this message with the next one in the alphabet.

The coded message is : **The sides of a rhombus are equal.**

Game #9

Oliver was 12 years old on **December 31, 2012.**

Game #10

We need to move **5 cars.**

Game #11



Game #12

For 4 people, you will need : **2 eggs, 5,7 oz of flour, 0,7 oz of butter and 4,2 oz of chocolat.**

ANSWERS

Exercise #13

1	6	7	2	4	3	<	5
2	7	3	5	1	4	6	
6	1	5	3	7	2	<	4
4	<	5	>	2	7	3	6
7	2	4	6	5	1	3	
3	<	4	6	>	1	2	5
5	>	3	>	1	4	6	7

Exercise #14

1	3	1	2	3	4	1	5	1
4	2	4	5	1	5	2	4	2
3	5	1	2	4	3	1	3	1
4	2	4	5	1	2	4	2	4
3	5	1	3	4	3	5	3	5
1	4	2	5	2	1	4	1	2
3	5	1	3	4	5	2	3	5
4	2	4	2	1	3	1	4	1
1	5	1	5	4	2	5	2	3
3	4	3	2	3	1	3	1	4
2	1	5	1	5	2	5	2	3

Exercise #15

0	0	1	1	0	1	0	1	1	0	0	1
1	1	0	1	0	1	0	0	1	1	0	0
0	0	1	0	1	0	1	1	0	0	1	1
1	1	0	0	1	1	0	1	0	1	0	0
1	0	0	1	0	0	1	0	1	0	1	1
0	1	1	0	0	1	1	0	1	0	0	1
0	1	0	1	1	0	0	1	0	1	1	0
1	0	0	1	1	0	1	0	0	1	1	0
1	0	1	0	0	1	1	0	1	0	0	1
0	1	1	0	0	1	0	1	0	1	0	1
1	0	0	1	1	0	0	1	1	0	1	0
0	1	1	0	1	0	1	0	0	1	1	0

HAPPY HOLIDAY

