

# RIDDLES BOOK

Rule of the game : with your team, solve each riddle as quickly as possible.

For each riddle, complete this table.

	The winner is group number ____
Riddle #1	
Riddle #2	
Riddle #3	
Riddle #4	
Riddle #5	
Riddle #6	
Riddle #7	
Riddle #8	
Riddle #9	
Riddle #10	

The winner of this game is group number \_\_\_\_.

ARE YOU READY TO PLAY?

GO

Riddle #1 : Dragon reserve

In the dragon reserve live two kinds of dragons: red and green. Each red dragon has three heads and two tails. Each green dragon has three heads and four tails. In all, there are 60 heads and 62 tails in this reserve.

How many red dragons are there in the reserve ?

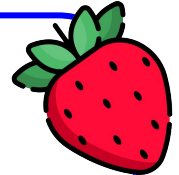


Write your calculations here !

Riddle #2 : Strawberries

Kevin serves himself three times in a bowl of strawberries.

In the morning, he eats  $\frac{2}{3}$  of it. At noon, he eats five strawberries. For his snack, he eats half of the remaining strawberries. He then notices that he has eight strawberries left for supper. How many strawberries were in the bowl this morning ?



Write your calculations here !

Riddle #3 : Harry Potter

In the summer, Harry Potter's Sorcerer's Stone is closed. After two weeks of vacation Harry decides to send a letter to his friend Ron Weasley. This letter is summoned by a snowy owl and it will take seven hours to deliver it. Coincidentally, Ron sends a letter to Harry at the same time. His owl, a little older than Harry's owl, will take nine hours to cover the 126 km that separate the two friends. **After how many hours of flight will the two birds meet ?**



Write your calculations here !

Riddle #4 : Dog

Bart leaves with his 5 dogs on vacation in the Ardennes. He wants to assess the food budget. A can of mash costs \$3 and 3 cans are enough to feed two dogs for a day. Bart wants to go on vacation for 8 days. **How much money should he plan to feed his animals during the holidays ?**



Write your calculations here !



### Riddle #5 : Series of numbers

Complete all three series.

a	1	1	2	3	5	8	13	?
b	1	7	?	16	19	21	22	
c	26	51	104	207	416	?		

Write your calculations here !

### Riddle #6 : Magic square

Complete this table (magic square) so that the result of adding all the digits in each row, each column and each diagonal gives **the result = 34**.

16	3	?	13
?	10	11	8
9	6	?	10
4	?	14	1



Write your calculations here !

**Riddle #7 :** Candy

The candy store sells sweets only in packages of 0.5\$, 1\$ and 1.5\$. **Write down all the possible ways to buy bungs for 3\$.**



Write your calculations here !

**Riddle #8 :** Numbers

We want to add the first 100 numbers, from 1 to 100.

Or :  $1 + 2 + 3 + 4 \dots + 98 + 99 + 100$

**How to do this calculation in your head and quickly ?**



Write your calculations here !

**Riddle #9 : Ostrich egg**

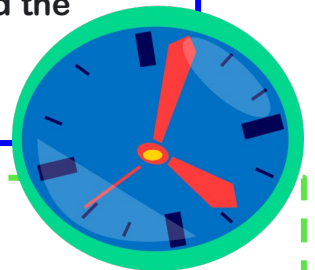


A man is in the desert and he has an ostrich egg he wants to eat. For this he must cook it for exactly 45 minutes and to calculate the time he has neither watch nor clock. He can't find his way around in the sun... In short, he only has two wooden slats of one meter each which burn completely in 1 hour and two lighters. **How does he measure the cooking time of his egg ?**

Write your calculations here !

**Riddle #10 : Clock**

**What is the value of the angle** formed between the minute hand and the hour hand at 3:15 ?



Write your calculations here !

# ANSWERS

Riddle #1	<ul style="list-style-type: none"><li>60 heads: 3 = 20 dragons, because each dragon has three heads.</li><li>If these 20 dragons were red, there should be 40 tails.</li><li>Now there are 62 tails, that is to say 22 more tails.</li><li>22 tails: 2 = 11 green dragons.</li><li>20 dragons – 11 green dragons = 9 red dragons.</li></ul>																																								
Riddle #2	<p>The count will be easier starting from the end.</p> <p>We start with eight strawberries.</p> <p>This is half the previous number because Kevin ate half of the remaining strawberries. The previous number was 8. 2 = 16.</p> <p>To these sixteen strawberries, five must be added because they were eaten in the second stage. 16 + 5 = 21.</p> <p>These 21 strawberries represent one third of the total 21. 3 = 63</p> <p>There were 63 strawberries in total in the dish.</p>																																								
Riddle #3	<table><tr><td>Flight hours</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>Distance traveled by the snowy owl</td><td>18</td><td>36</td><td>54</td><td>72</td><td>90</td><td>108</td><td>126</td><td></td><td></td></tr><tr><td>Distance traveled by the owl</td><td>14</td><td>28</td><td>42</td><td>56</td><td>70</td><td>84</td><td>98</td><td>112</td><td>126</td></tr><tr><td>Sum of distances traveled</td><td>32</td><td>64</td><td>96</td><td>128</td><td></td><td></td><td></td><td></td><td></td></tr></table> <p>After 4 hours, the two birds have traveled a distance greater than that which separates Harry from Ron. The two birds passed each other during the 4th hour of flight.</p>	Flight hours	1	2	3	4	5	6	7	8	9	Distance traveled by the snowy owl	18	36	54	72	90	108	126			Distance traveled by the owl	14	28	42	56	70	84	98	112	126	Sum of distances traveled	32	64	96	128					
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Riddle #4	<p>→ If two dogs need 3 cans of food per day, then 5 dogs need 7 and a half cans.</p> <p>Because 3:2.5=7.5</p> <p>→ It will take 8 times more for the full stay.</p> <p>8.7.5 =60</p> <p>→ At \$3 per box: 60.3=\$180</p> <p>The dog food budget is \$180.</p>																																								
Riddle #5	<div>a. Each number is the sum of the two numbers preceding it : 8+13=21</div> <div>b. 22-1=21 21-2=19 19-3=16 16-3=16 16-4=12 12-5=7 7-6=1</div> <div>c. 26.2=52 51.2=102 104.2=208 207.2=414 415.2=832</div> <div>52-1=51 102+2=104 208-1=207 414+2=416 832-1=831</div>																																								

# ANSWERS

Riddle #6	<table><tr><td>16</td><td>3</td><td>2</td><td>13</td></tr><tr><td>5</td><td>10</td><td>11</td><td>8</td></tr><tr><td>9</td><td>6</td><td>7</td><td>10</td></tr><tr><td>4</td><td>15</td><td>14</td><td>1</td></tr></table>	16	3	2	13	5	10	11	8	9	6	7	10	4	15	14	1																								
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Riddle #7	<table><tr><th>Possibilities</th><th>0.50\$</th><th>1\$</th><th>1.50\$</th><th>Total in \$</th></tr><tr><td>1</td><td>0</td><td>0</td><td>2</td><td>3</td></tr><tr><td>2</td><td>0</td><td>3</td><td>0</td><td>3</td></tr><tr><td>3</td><td>1</td><td>1</td><td>1</td><td>3</td></tr><tr><td>4</td><td>2</td><td>2</td><td>0</td><td>3</td></tr><tr><td>5</td><td>3</td><td>0</td><td>1</td><td>3</td></tr><tr><td>6</td><td>4</td><td>1</td><td>0</td><td>3</td></tr><tr><td>7</td><td>6</td><td>0</td><td>0</td><td>3</td></tr></table> <p>So there are 7 possible ways to buy candy for 3\$.</p>	Possibilities	0.50\$	1\$	1.50\$	Total in \$	1	0	0	2	3	2	0	3	0	3	3	1	1	1	3	4	2	2	0	3	5	3	0	1	3	6	4	1	0	3	7	6	0	0	3
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7	6	0	0	3																																					
Riddle #8	<p>Of course there is a trick. It consists in making the sum two by two starting from the extremities. We then notice that this sum is worth 101 each time (<math>1 + 100 = 101</math>, <math>2 + 99 = 101</math>, <math>3 + 98 = 101</math>...).</p> <p>There are 100 terms or 50 "pairs".</p> <p>The calculation :</p> <p><math>50 \times 101 = 5050</math></p> <p>The sum is 5050.</p>																																								
Riddle #9	<p>He simultaneously lights the first string on each side and the second on one side only. When the first has finished burning 30 minutes have passed and the second has also burned for 30 minutes. So he lights the second end of the last rope, when the two flames have met then 15 min will have passed and in total 45 min, his egg will be cooked.</p>																																								
Riddle #10	<p>The solution to this riddle is 7.5 degrees.</p> <p>The minute hand is positioned exactly at 3.</p> <p>The hour hand has passed 3. It is 1/4 of the distance between 3 and 4.</p> <p>A 12-digit clock represents an angle of 360 degrees. we can therefore deduce the value between each digit (<math>360/12 = 30</math>).</p> <p>The angle between the two hands is 1/4 of 30. It's 7.5.</p>																																								