RAM – + WORKSHOP 5th Grade Name _____Solution_____ MATHLETE Challenge4
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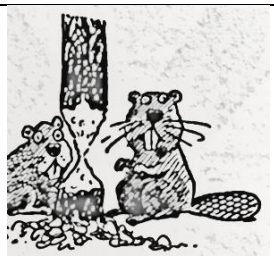
1.
List *K*: 3 1 6 9 5 2 8 7 *K* – *L* = 3 + 9 – 4 = 8
List *L*: 2 0 5 8 4 1 7 6
B. 8

2. If 6 beavers can clear the trees from a lot in 36 hours, then twice as many as beavers (12) will need half as much time (18 hours) to clear these same trees.
A. 18



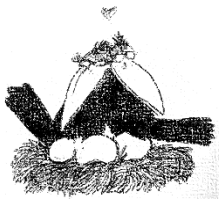
3. Since 20 added to 100 is 120, and 4 × 30 = 120, the answer is 30.
4 × 30 – 20 = 100.
B. 30

34	153	68
119	85	
102	17	136

4. In any row or column with 3 numbers, the sum of the 3 numbers is 255. (34+153+68=255) The sum of the 2 numbers already in the third column is 68 + 136 = 204. The missing number is 255 – 204 = 51.

5. Odd + odd = even. Only 2 and 4 are even numbers. Since 2 = 1 + 1, and the two odd numbers must be different, so the answer is 4.
C. 4

6. Triplets are 3, so 16 triplets = 16 × 3 = 48. Twins are 2. Since 48 ÷ 2 = 24, the loving birds' 16 triplets is the same number of birds as there are 24 sets of twins.
D. 24



7. First, twice 24 is 48. That's 3 times the number of pencils you have, so the number of pencils you have is 48 ÷ 3 = 16.
D. 16

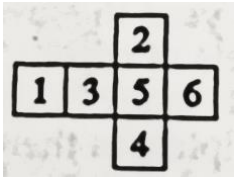
8. From 1 to 100, there are 50 (half) even numbers. The smallest is 2, and the largest is 100. Therefore, there are 48 even numbers are greater than 2 and less than 100.
A. 48

9. my age now + my age 6 years ago = 24
my age now + my age 6 years ago + 6 = 24 +6
my age now + my age now = 30
my age now = 15
my age in 2 years = 17
C. 17

10. I delivered 3 pink and 2 blue boxes. The total weight of the 3 pink boxes equaled the total weight of the 2 blue boxes. I delivered 2 blue boxes, so the 5 boxes weigh the same as 2 × 2 blue boxes. Thus, 4 blue boxes weigh a total of 60 kg. Each weighs 60 ÷ 4 = 15 kg.
B. 15 kg

11. 6 × 7 × 8 × 9 × 10
= (1×2×3) × 7 × (2×4) × 9 × (2×5)
The product is a multiple of 1 × 2 × 3 × 4 × 5, so the remainder is 0.
D. 0

12. When folded, 2 is opposite 4, 1 is opposite 5, and 3 is opposite 6. (You can see this by cutting out the diagram shown and folding it into a cube.)
B. 3



13. 101=1+100, 102=2+100, … , 200=100+100.
There are 100 terms in the second sum, and each is a term in the first sum + 100. So the second sum = 5050 + 100×100 = 5050 + 10000 = 15050.
D. 15,050

14. There are 24 ways that I can rearrange the digits of 1234 to form a number:

	2nd digit is 1		2nd digit is 2		2nd digit is 3		2nd digit is 4	
1st digit is 1	/	/	1234	1243	1324	1342	1423	1432
1st digit is 2	2134	2143	/	/	2314	2341	2413	2431
1st digit is 3	3124	3142	3214	3241	/	/	3412	3421
1st digit is 4	4123	4132	4213	4231	4312	4321	/	/

Since 1234 is the smallest number, there are 23 different ways to form a number greater than 1234.
D. 23