RAM WORKSHOP 4th Grade

Name ___Solution_____

MATHLETE Challenge 2

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1. From the question, we know that Stan earns 20¢ for every glass of lemonade he sells. Stan earns $20, which is 2000¢, so he sells 2000¢ ÷ 20¢ = 100 glasses of lemonade.
D. 100

2. The sum of my quarters ($0.25), dimes ($0.10) and nickels ($0.05) will be either be in the form ($*xx.x***0**) or ($*xx.x***5**) (the values of *x* is irrelevant because we only care about the last digit). Add 8 pennies ($0.08), the total will end with a 3 or an 8.
D. $21.93

3. If 20 years ago Allen was half as old as he is today, then today he is 40. Thus, 10 years ago he was 30.
B. 30

4. If the sum of 7 whole numbers is even, there must be an even number of odd numbers. The largest possible number of odd numbers could be 6.
A. 6

5. (10 hundreds) + (10 ones) = 1000 + 10 = 1010 = 101 tens.
B. 101

6. What is the least common multiple (lcm) for 4, 6 and 8? 4=2x2, 6=2x3, 8=4x2, so the lcm for 4, 6 and 8 is 2x2x3x2=24.
The number of meatballs is divisible by 4, 5, 6, 7, and 8. The lcm of 4, 5, 6, 7, and 8 is 2×2x5×3 ×7 ×2 = 840.
C. 840

7. Charlie grills 3 hot dogs for every 8 hamburgers he grills, so we can consider 3 hot dogs and 8 hamburgers as one group. If he grills 48 hamburgers, that is 6 groups of 8 burgers. So he grills 6 ×3 = 18 hot dogs.
A.18

8. Method (1): Let my age in years = X, then my age in months = (12)(X). From the question, we know that (12)X – X = 99. So (12)X – X = (11)X = 99. X = 9.
Method (2):
If my age in months= 12, then my age in years = 1.
If my age in months= 24, then my age in years = 2.
(I would continue the pattern until I get the age in months > 99).
If my age in months= 108, then my age in years = 9.
108 – 9 = 99, so my age in years = 9
A. 9

9. $1 + 3 + 5 + 7 + 9 + \ldots + 99 = 2500$

$= 1 + 3 + 5 + 7 + 9 + \ldots + 99 + 101 - 1$

$= 1 + 3 + 5 + 7 + 9 + \ldots + 99 + 101 - 1$

$= 2500 + 101 - 1$

$= 2600$

B. 2600

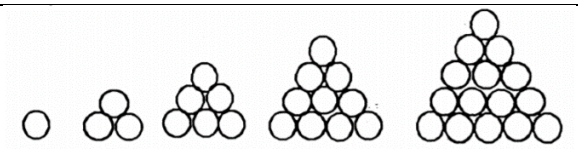
10. My aunt can fold 4 paper cranes in 1 minute. My uncle can fold 3 paper cranes in 1 minute. Together they fold 7 paper cranes in 1 minute. It takes them 42 ÷7 = 6 minutes to fold 42 paper cranes.
A.6 minutes

11. Work backwards. Alfonse's rat is 6 × 4 = 24 mm tall. His cat is 8 × 24 = 192 mm tall. His high chair is 10 × 192 = 1920 mm tall
D. 1920 mm

12. If Ray ran for the first time last month on a Monday, then he ran on Wed., Fri., Sun., Tues., Thurs., Sat., Mon., Wed., and Fri. The tenth day was a Friday
C. Friday

13. List the ways the 3 students (J, K, and L) can be arranged?
JKL JLK
KJL KLJ
LJK LKJ
C.6

14.



The Tenth Figure:

1+2+3+4+5+6+7+8+9+10 = 55

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