



Math Olympiad and Problem Solving Programs

F130 - Advanced Problem Solving

Problem Set 1.2 - Palindrome and Cryptarithms Solutions

Name:

Date:

1. We have $A = 9$ and $B = 3$. Thus, $A + B = \boxed{12}$.
2. The palindromic year of last century is 1991. The palindromic year of this century is 2002. Their sum is $\boxed{3993}$, another palindrom.
3. Four-digit palindromic dates are 1001, 1111, 1221. $\boxed{3}$.
4. $\boxed{A = 5, B = 4}$.
5. $\boxed{A = 5, B = 6, C = 4, D = 1}$.
6. $\boxed{998 + 18 = 1006}$.
7. $\boxed{38 + 57 + 923 = 1018}$.
8. $\boxed{777}$.
9. $\boxed{4, 4884}$.
Step 1. $78 + 87 = 165$;
Step 2. $165 + 561 = 726$;
Step 3. $726 + 627 = 1353$;
Step 4. $1353 + 3531 = 4884$.
10. $\boxed{888 + 88 + 8 + 8 + 8}$.