1. $\boxed{\text{13 quarters and 17 nickels}}$
2. $\boxed{197}$
3. $\boxed{7}$
4. Consider the sequence $3, 10, 17, 24, \ldots, 528$. Rewrite it as additions: $3, 3+7, 3+7+7, 3+7+7+7, \ldots = 3, 3+7, 3+2\cdot 7, 3+3\cdot 7, \ldots, 3+n\cdot 7$. The task is to find n. We know the last number is 528, so we can make an equation: $528 = 3 + n \times 7$. Use algebra or guess and check to solve: $525 = 7 \times n \Rightarrow n = 75$. Now we must determine the relationship between n and N. Notice the pattern. The 1st term 3 has 0 sevens, the 2nd term 10 has 1 seven, the 3rd term has 2 sevens, and so on. So the (blank) term has (blank - 1) sevens. Since 528 has 75 sevens, then it must be the 76th term. So $N = \boxed{76}$
5. $\boxed{9}$
6. Do this problem by guessing and checking. Test 5: if she has 5 quarters and 5 nickels, than she has \$1.25 in quarters and \$0.25 in nickels, and the difference between the amount in quarters and nickels is $\$1.25 - \$0.25 = \$1.00$. Keep guessing. The right answer is 9: when she has 9 quarters (or \$2.25 in quarters) and 9 nickels (or \$0.45) in nickels, the difference between the amounts is $\$2.25 - \$0.45 = \$1.80$. So we add her amounts to find the answer: $\$2.25 + \$0.45 = \boxed{\$2.70}$
7. $\boxed{28}$
8. $\boxed{298}$
9. $\boxed{23}$
10. $\boxed{\text{Jun 7, Matthew 8, McKinley and Ethan 9, Blythe 10}}$