Problem of the Week Problem A Patterned Savings

Rebecca begins saving money starting on January 1. She collects money in a jar in the following way. Every day she puts a quarter in the jar. Every second day, starting on January 2, she puts a loonie in the jar. Every fifth day, starting on January 5, she puts a toonie in the jar.

So some days she puts one coin in the jar, some days she puts two coins in the jar, and some days she puts three coins in the jar. In Canada, a quarter is worth 25 cents, a loonie is worth one dollar, and a toonie is worth two dollars. There are 100 cents in one dollar.

- (a) How many coins does she add to the jar on January 12?
- (b) How many coins does she add to the jar on January 23?
- (c) How many coins does she add to the jar on January 30?
- (d) How many coins in total does she have in the jar by the end of January?
- (e) If she keeps saving this way, how much money will she have after 90 days?

