First I would subtract the total of the transaction from the given amount of cash.

Ex. $20 – 17.25 = 2.75

Then I would have the register perform the MOD function of the difference of those numbers ^ and the highest bill (probably starting at twenty. If the solution for the division is 0, then the machine would continue the same process of performing a MOD function for the next bill size down.

Ex. If the machine starts with $5 bills, it would do 2.75 % 5, and get 2.75 as a result. The machine then performs 2.75 – (the result of the MOD) so 2.75 – 2.75, this equals 0, 0 / 5 = 0, so this means zero $5 bills will be given. The machine then moves on to a $1 bill. When the machine does 2.75 % 1 it gets 0.75.  
2.75 - .75 = 2, 2/ 1 = 2 , meaning two $1 bills are given. Then it goes to quarters, so it does 0.75 % 0.25, and it gets 0 as a result. 0.75 – 0 = 0.75. Now it does 0.75 / 0.25, and gets 3. The machine gives 3 quarters. That would be all of the change for this transaction. (2 \* 1 + 3 \* 0.25 = 2.75)