1. writing Christmas cards to family: Deterministic

You know the number of family members requiring a Christmas card, so you know exactly how many cards need written before you start.

1. Washing up: Either

Depending on the day, or the meal, the number of items to wash up can vary. Generally, this would make the loop non-deterministic, however you could also count all the items requiring washing before you start each day, so it could be solved both ways.

1. Reading a book: Either

Each page is read one at a time, from the front cover of the book to the back. We know how many pages are in the book, so loop over each page, making the process deterministic. However, arguably if a reader wanted to look at an illustration in the appendix this would throw the loop off, so it can be argued, depending on the reader and the book, a non-deterministic loop would be better.

1. Waiting for someone to answer the phone: Non-deterministic

You don’t know when the phone will be answered, if at all. Owing to this, the loop would to keep going until the phone was eventually answered, making it non-deterministic.

1. Counting to 10 in French: Deterministic

The count to 10 is a clearly defined parameter, with each number getting one closer to ten. Numbers are said in order, counting from 1 to 10, meaning we know exactly which sequence the loop will follow.

1. Playing a game of 501 in darts: Non-deterministic

The score increment depends on the players score each throw, which cannot be guaranteed to be a certain number. Due to this, we cannot accurately state when the score of 501 will be hit.

1. Laying the table for a dinner party: Deterministic

Assuming we know the number of guests then we know that each guest needs cutlery, a plate, utensils etc. This is a set process, expanded by the number of guests in attendance.

1. Answering this question: Non-deterministic

Answering the question will take a different amount of time for each person, and involve a different process, so a non-deterministic approach would be correct.