State whether each of the following is deterministic, non-deterministic or either (ie could be solved deterministically or non-deterministically) and justify your choice:

1. a) writing Christmas cards to family [non-deterministic]
2. non-deterministic as there is no set order to write the cards and there is no enforced requirement on who to send cards to or not send cards to, i.e. how far does your extended family extend.
3. b) washing up [non-deterministic]

non-deterministic as there is no set order in which to wash the items, nor when or how many of them to wash at a given sitting.

1. c) reading a book [either]
2. Assuming this is a standard linear fiction or non-fiction book, rather than a reference book or a recipe book etc then the process would be deterministic unless you’re a manic who reads the ending first or jumps about.
3. Other book types such as reference books, dictionaries, thesauruses, recipe books, manuals etc would be non-deterministic as there would be no way to know what you wanted to look up at any given time.
4. d) waiting for someone to answer the phone [non-deterministic]

non-deterministic as you don’t know when or even if they will answer the phone. They may be out, or not have their phone, or be asleep.

1. e) counting to 10 in French [deterministic]
2. deterministic as the sequence is fixed and predictable.
3. f) playing a game of 501 in darts [non-deterministic]

non-deterministic as there are many ways to make the required value and the number of throws varies based on the values achieved.

1. g) laying the table for a dinner party [non-deterministic]

non-deterministic as there are as many ways to lay a table as there are variations on tables, party themes and guest numbers.

1. h) answering this question [either]
2. non-deterministic as everyone will have their own opinion on and reasoning for their answers.
3. In theory, assuming everyone answers correctly as per the expectation of the person setting the questions and the answers were constrained to simple deterministic or non-deterministic then the result would be deterministic, however the justification requirement means that no 2 sets of answers would be the same. I’m assuming no-one cheats and copies…