QUIZ 5

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1. Fill in the following code! `odd_stream` returns a stream that adds 3 to the previous integer if odd and adds 5 if even.

```
def oddstream(num = 1):
    def compute_rest():

        if _____:

            return _____

        else:

            return _____

    return Stream(_____, _____)
```

2. Define a procedure `partial_sums` that takes as argument a stream `S` and returns the stream whose elements are `S0, S0 + S1, S0 + S1 + S2, ...` For example, `partial_sums(positives)` should be the stream `1, 3, 6, 10, 15, ...`. Hint: Recall `map_stream`.

```
def map_stream(fn, s):
    if s is Stream.empty:
        return s
    return Stream(fn(s.first), lambda: map_stream(fn, s.rest))

def partial_sums(s):

    add_first = _____

    return Stream(_____, _____)
```

3. What are the first five elements of the following Stream?

```
def stream():
    return Stream(1, lambda: add_streams(stream(), stream()))
```