For each of the following random variables, decide: **is it binomial, geometric, or neither**?

Flip 100 independent coins, each lands heads with prob 1/3.
You win \$5 each time a coin comes up heads.

heads =

dollars won =

1 out of every 10 cereal boxes contains a prize. You keep buying boxes until you get one.

boxes bought =

A box contains **10 red** balls and **5 green** balls.
You pick 3 balls from the box **with replacement**

red balls picked =

You pick 3 balls from the box **without replacement**

red balls picked =

A device fails each day with probability 1/100

days until first failure (including day it fails) =

days until first failure (**not** including day it fails) =