

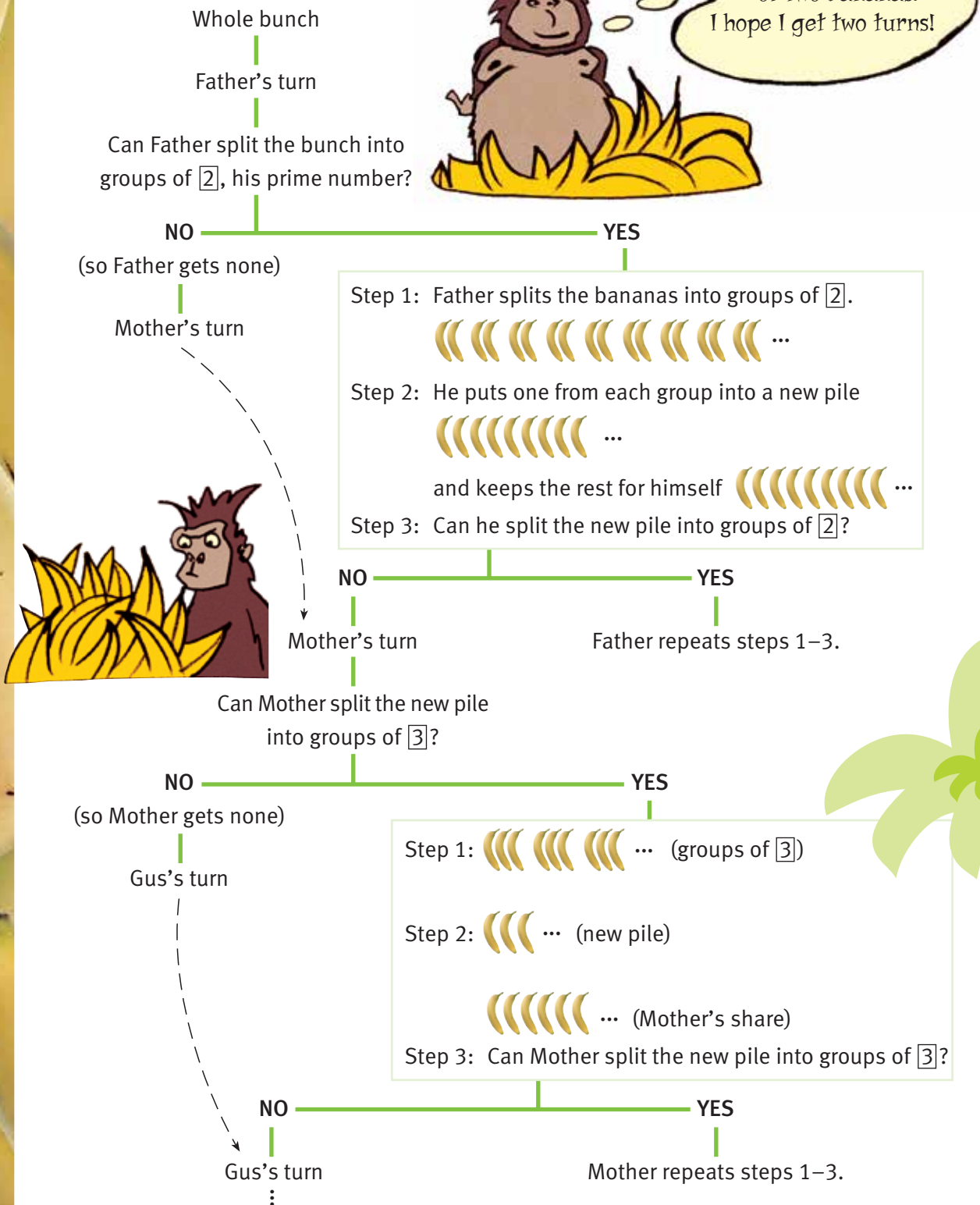
Going Bananas

You need: yellow cubes or counters (optional)

ACTIVITY

The Gorilla family uses prime numbers to share out bunches of bananas. Father Gorilla's favourite prime number is 2, Mother's is 3, and Gus's is 5. Father is the eldest, so he always has the first turn. Junior gets the bananas that are left at the end.

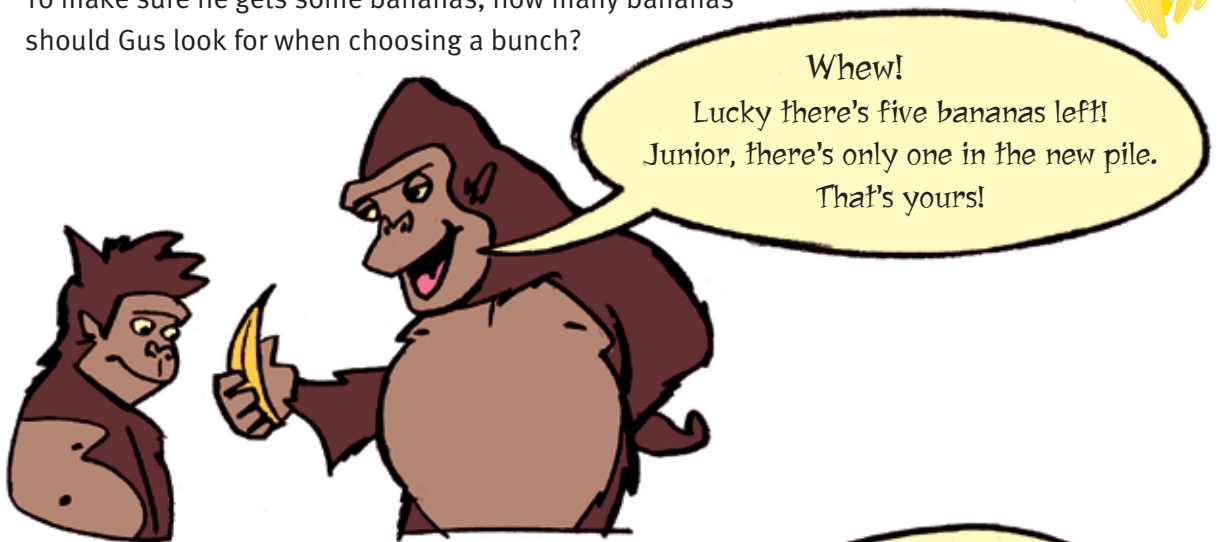
Banana Rules



One day, Gus arrives home with a bunch of 30 bananas. Father Gorilla, as usual, goes first.



1.
 - a. How many bananas does Father get in his first turn?
 - b. Can he divide the new pile into groups of 2?
 - c. Father usually gets the most. What size bunch should Gus pick if he doesn't want Father to get any?
2. It's Mother Gorilla's turn.
 - a. How many bananas does Mother get?
 - b. What size bunch should Gus pick if he doesn't want Mother to get any bananas when it's her turn?
3. After Mother has finished, it's Gus's turn. To make sure he gets some bananas, how many bananas should Gus look for when choosing a bunch?



4. Poor Junior! He gets only one banana this time.



How many bananas should Junior pick tomorrow to keep all the bananas for himself?

5. Work out how many bananas each gorilla would get if there were:
 - a. 14 in the bunch
 - b. 18 in the bunch
 - c. 17 in the bunch
 - d. 6 in the bunch.