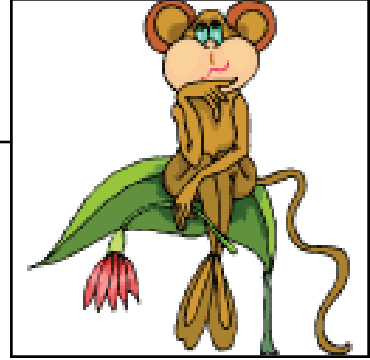


Monkey Business



Three monkeys lived on an island and hunted for food together. They put all of the coconuts they found in a large pile and went to sleep.

During the night, the first monkey woke up hungry. He ate one coconut, then he divided the rest of the coconuts into three equal piles. He pushed two piles back together, then took the third pile off into the forest to eat some more before returning to bed.

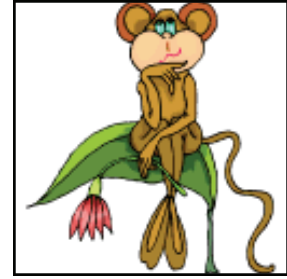
After a short time, the second monkey woke up hungry and went to the pile of coconuts. He ate one coconut and then he divided the rest of the coconuts into three equal piles. He pushed two piles back together, then took the third pile off to the beach to eat some more before returning to bed.

Soon, the third monkey woke up, went to the pile of coconuts and ate one coconut because he was hungry. He divided the rest of the coconuts into three equal piles. He pushed two of the piles together then took the third pile back to his favorite tree to eat some more before returning to bed.

In the morning, the three monkeys went to the pile of coconuts and were surprised to only see 6 coconuts left. "I know there were more than this yesterday," said the first monkey. The other two monkeys nodded in agreement. "I only took a couple last night," the first monkey said. "I only took a couple last night," the second monkey echoed. "Me too!" said the third monkey.

- How many coconuts were in the pile when the monkeys went to bed?
- How many coconuts did each monkey actually take?
- If they split the remaining coconuts fairly, did each monkey get his fair share of the coconuts? Explain.

Monkey Business Solution



1. Make a forward path.

Total coconuts
-1
/3
x2
-1
/3
x2
-1
/3
x2
6 coconuts left

2. Make a backward path. Backward.

Total coconuts	25
+1	25
x3	24
/2	8
+1	16
x3	15
/2	5
+1	10
x3	9
/2	3
6 coconuts left	6



ANSWER:

- There were 25 coconuts in the pile when the monkeys went to bed.
- The first monkey took the 1 he ate plus a pile of 8: 9 coconuts
- The second monkey took the 1 he ate plus a pile of 5: 6 coconuts
- The third monkey took the 1 he ate plus a pile of 3: 4 coconuts
- If they split the remaining coconuts fairly, they will each get 2 more so the 1st monkey will have gotten 11, the 2nd monkey will have gotten 8 coconuts and the 3rd monkey will have gotten 6 coconuts. Since they each received different numbers of coconuts, this is not a fair sharing of the total coconuts.