

## Problem 5

### Can you keep count?



The Tocal zoo has an area where there are three types of native Australian animals — wallabies, wombats and koalas — for visitors to see on tours.

The zookeepers keep records of the numbers of each type of animal. At the end of both the first and second years, there were three times as many wombats as koalas and half the total animal population was wallabies.

1. If there were three koalas at the end of the first year, what was the total animal population?
2. If the total population at the end of the second year was 40, how many wallabies, wombats and koalas were there?
3. At the end of the third year, the total animal population had grown to 55. There were still three times as many wombats as koalas and more than half the total population was wallabies.
4. The zookeeper thought he had counted eight koalas. Explain why this was a mistake.
5. What is the largest possible number of koalas in the area at the end of the third year?

Answer: