

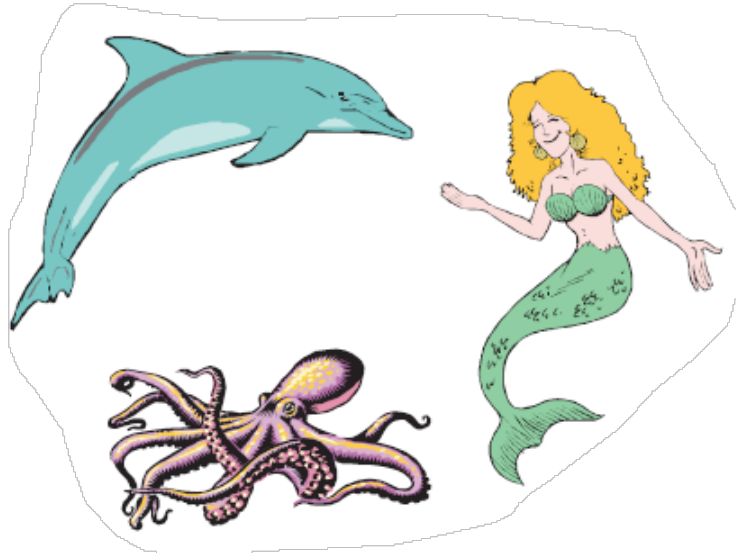
Study Skills - Problem Solving

LP: To apply critical thinking skills to solve a problem

On the next slide there will be a problem or puzzle of some kind, work to try and find a solution.

They are all possible so don't give up!

A Sailor's Tale

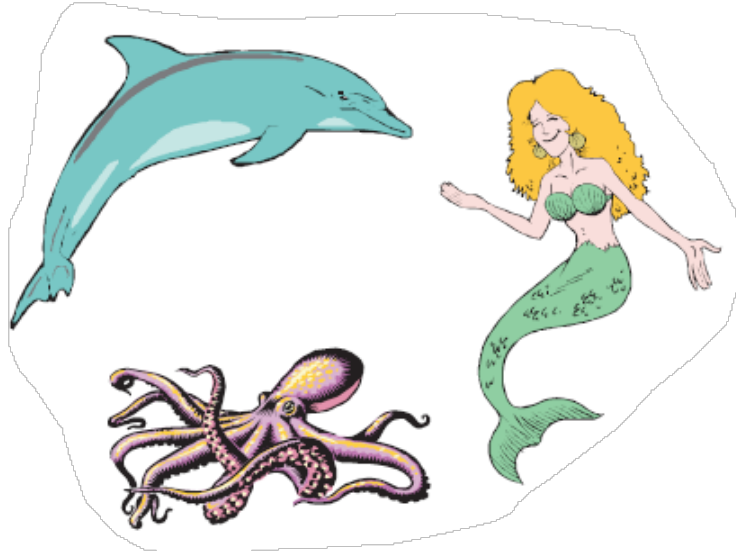


A group of dolphins, mermaids and octopuses have 38 arms, 13 tails and 32 eyes. How many of each are there in the group?

Extra info: A dolphin has no arms and an octopus has 8 arms.

Extension: *Would you be prepared to explain your answer to the class*

Solution:



*Answer: 3 octopuses,
7 mermaids, 6 dolphins*

Explanation:

These are the only numbers that make this work.

Arms: $3 \times 8 + 7 \times 2 + 6 \times 0 = 38$ arms

Eyes: $3 \times 2 + 7 \times 2 + 6 \times 2 = 32$ eyes

Tails: $3 \times 0 + 7 \times 1 + 6 \times 1 = 7$ tails

However, there is a method to solve problems like this called simultaneous equations. Look them up on mymaths or the internet to find out more.