## Questions and answers

1. If plastic bottle A was thrown at sea in 2000, bottle B in 2021 and bottle C in 2030, which bottle or bottles will still be found in the sea if aliens come to visit Earth in the year 2462?

*A: 2000+450=2450*

*B: 2021+450=2471*

*C: 2030+450=2480*

*Answer: Bottles B and C*

*4 points*

2. If Peter throws out a cardboard box at sea, one at a time, leaving enough time for it to decompose before throwing out the next, how many boxes does he have if it takes him 68 months in all to say that all the boxes have decomposed?

*68/2=34*

*Answer: 34 cardboard boxes*

*3 points*

3. If my mum drops a plastic bag containing 2 cotton shirts and a pair of wool socks in the sea how will they take to decompose if a plastic bag takes 20 years, a cotton shirt takes 5 months and a wool sock takes 5 years to decompose? What is the total time taken if I had to add up the time it takes for each item to decompose separately?

*Plastic bag: 20yearsX12 = 240 months*

*2 Cotton shirts: 2X5months = 10 months*

*Pair of wool socks: 2(5X12)= 2(60) = 120 months*

*20X12 + 2X5 + 2(5x12) = 240 + 10 + 120 =370 months*

*Answer: 370 months*

*8 points*

4. John and Mary took their children to Ramla to play on the sand. The father left a waxed carton behind him, Tom and Jane left an aluminium can each, and the mother had a coffee and left a Styrofoam cup on the sand. The wind blew everything into the sea. Give the total number of months you get when you add the time each of the items left behind takes to decompose.

*(200X2)+50=450 years*

*450 x 12=5400 months*

*5400+3=3003*

*Answer: 5403 months*

*6 points*

5. Paul was diving in Xlendi. He found new litter on the sea bed and picked it up. In all he collected 4 plastic bottles, an aluminium can and a plastic bag that takes 15 years to decompose. How long would it have taken for everything to decompose if he had left them on the seabed?

450 x 4=1800

1800 + 200 + 15 = 2015

Answer: 2015 years

*6 points*

6. Ben was running on the Sliema seafront promenade carrying 6 newspapers. Without noticing they fell off one by one along the way and were blown into the sea. Sue managed to pick up 2 of the newspapers. How long will it take for the newspapers which fell in the sea to decompose?*

**Trick question – Answer: Just 6 weeks. One newspaper and four newspapers still take the same time to decompose since they all start to decompose together.*

*4 points*

7. If my father threw a tin can in the sea in 1999 and I go for a swim today, is there a chance that I will still find the same can?

*1999+50=2049*

*Answer: Yes one will probably still see the tin can if it stays in the same place though by now it is rusty*

*3 points*

8. A family are having lunch on the beach. Mum and dad each threw out a Styrofoam cup in the sea, and their daughter threw an apple core in the sea. Find the total number of months one gets when you add up time for the Styrofoam cups and the apple core take to decompose fully?

*50 x 2 =100 years*

*100 years x 12 = 1200 months*

*1200 + 2 = 1202 months*

*Answer: 1202 months*

*4 points*

9. 5000 years is the total amount that a number of cigarette butts take to decompose completely in the sea if their decomposition time is added together. How many cigarettes would that involve if one cigarette butt takes 5 years to decompose?

5000 / 5 = 1000

Answer: 1000 cigarette butts

*3 points*

10. If a fine fishnet decomposed fully in 2654, when was the fine fishnet lost in the sea?

*2654-600=2054*

*Answer: The fishnet will be lost at sea in the year 2054.*

*3 points*

11. Fido, the dog, grabs a cardboard box containing a pack of 7 Styrofoam cups and 3 tin cans and starts running on the beach dropping every item from the box. At the end, he drops the cardboard box as well. If all the items are blown into the sea how long will they take to decompose?* What is the total number of years and months does the decomposition time of all the items add up to?

**Trick Question – answer to first question is 50 years;*

*7 Styrofoam: 50 X 7 = 350 years*
*3 tin cans: 50 X 3 = 150 years*
*box: 2 months*
*Answer: 350 years + 150 years + 2 months = 500 years 2 months*

*7 points*

12. In 1997 a cat was eating cat food from a tin can, when it rolled into the sea. When will the tin can entirely decompose? How many more years does it have to decompose completely?

*1997 + 50=2047*

*2047 – 2021 (current year) = 26*

*Answer: The tin can decomposes completely in 2047*

*27 years remain for the can to decompose*

*5 points*

13. Three babies swimming in the sea lost their disposable diapers while swimming. A couple threw 2 aluminium cans in the sea on the same day. What is the total number of years decomposing do all these items add up to altogether?

*450 x 3 = 1350*

*200 x 2= 400*

*1350+400 = 1750*

*Answer: 1750 years*

*5 points*