

Problems in the kitchen



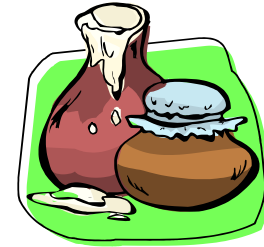
Nina is a very fussy cook and wants to cook her speciality, "Pasta la Nina", for exactly 15 minutes.

Unfortunately, none of the clocks is working (Nina is not good at remembering to buy batteries) and the only timers she has are a 7-minute timer and an 11-minute timer. (Don't even ask why – it's a mystery to everyone including Nina.)

How does she time her pasta to perfection?

Please note: Nina is not allowed to guess. You must come up with a solution that will time the pasta for exactly 15 minutes.

Sangeeta needs to measure exactly 400 mls. of water (no guessing or estimating allowed) but she can only find two containers. One contains 300 mls. when full (and has no other markings on it); the other contains 500 mls. (with no other markings). How can she measure the amount of water she needs?



Craig and Carl were quite keen on doing some cooking but their Mum only had some old-fashioned scales and they could only find the following weights:

- 100 gm 200 gm 700 gm

"That's no good," complained Carl, "The recipe says we need 500 grams of flour and 400 grams of sugar." "There's no need to worry," Craig declared, "Using those weights, we can weigh out

anything from 100 grams to 1 kilogram - in one weighing - as long as it's in multiples of 100 grams." Carl couldn't see how it could be done. Can you show him? (The first two – the easy ones – have been done for you.)

	Left scale-pan	Right scale-pan
100 gms	<i>Sugar</i>	<i>100 gm weight</i>
200 gms	<i>Sugar</i>	<i>200 gm weight</i>
300 gms		
400 gms		
500 gms		
600 gms		
700 gms		
800 gms		
900 gms		
1000 gms		