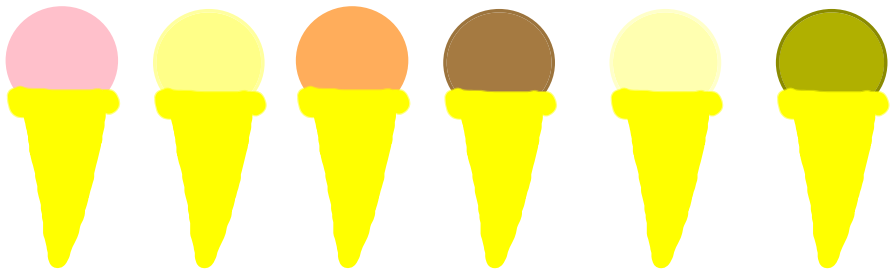
Ice Cream Delivery

The ice cream van sells 6 favours of ice cream:



strawberry lemon peach chocolate vanilla toffee

Fred buys a cone with 2 scoops of ice cream each day.
He thinks he can have a different combination of flavours every day for 20 days.
Is he right?

- If one of the flavours ran out, for how many days will Fred be able to have a different ice cream combination?
- Fred now wants to try 3 scoop ice creams – how many different combinations are there?

Learning and Teaching Objectives

- Have a system for finding all possibilities
- Organise the recording of possibilities (ordered list, table)
- Have a way of deciding when all possibilities have been found
- Interpret and predict from available data

Ice Cream Delivery Solution

	strawberry	lemon	peach	chocolate	vanilla	toffee
strawberry	ss	sl	sp	sc	sv	st
lemon		ll	lp	lc	lv	lt
peach			pp	pc	pv	pt
chocolate				cc	cv	ct
vanilla					vv	vt
toffee						tt

21 different flavour combinations

- If one flavour runs out, 6 of the combinations above will be removed, leaving 15 combinations

- For three scoop ice – creams add a scoop of each flavour to the 21 combinations above :
    - Strawberry → 21 cones
    - Lemon → 21 cones
    - Peach → 21 cones
    - Chocolate → 21 cones
    - Vanilla → 21 cones
    - Toffee → 21 cones

    126 3 scoop combinations