**Example 1 : Adjust 90 degree brine to 70 degrees strength**

How much salt and water is in 1200 litres of 90 degree brine?

90 degree brine contains 280.10g salt per litre so 1200 litres contains

Col H                                    1200 x 280.10 =    **336,120** grams salt

90 degree brine contains 899 grams of water per litre so 1200 litres contains

Col G                                    1200 x 899 =    **1,078,800** grams water

                                    This is approx.*    **1079**    litres of water

To make up a 70 degree brine with 336120 grams of salt, you would use how much water?

Col C            226.78 grams salt for each litre of added water

            Total water = 336120/226.78        =    **1,482.14** litres water

As the brine already has 1079 litres of water in it you only need to add 1482-1079 litres of water

                                    1482 -1079=    403    litres

It's a similar process w 1200 brine + 403 litres water is approx 1603 litres of final 70 degree brine.

**Summary of steps**

        How much salt and water do you have in your brine?
        How much salt and water should you have in your brine?
        What is the difference that needs altering?

\* As 1 litre of water weighs 998 grams at room temperature it is more accurate to divide grams of water by 998 to get litres.

**Try these examples**

1. Adjust 500 litres of 86 degree brine to 70 degree brine by adding water

                                                                                **Notes**

How much salt is in the 500 litres?                    grams            Col H

How much water is in the 500 litres?                    grams            Col G

How many litres of water is that?                    litres            divide grams by 998 to get litres

If you started with this much **salt,** how much
water would you have needed to make the
70 degree brine?                                            Salt / Col C

How much water should you add to your
brine?                                            litres            difference between what you
                                                                have and what you need.

2. Adjust 750 litres of 56 degree brine to 80 degree brine by adding salt.

**Notes**

| | | |
|---|---|---|
| How much salt is in the 750 litres? | grams | Col H |
| How much water is in the 750 litres? | grams | Col G |
| How many litres of water is that? | litres | divide grams by 998 |
| If you started with this much **water** how much salt would you have needed to make the 80 degree brine? | | water x Col C |
| How much salt should you add to your brine? | grams | difference between what you have and what you need. |

**The Answers**

Example 1 - the amount of water to add is 2 litres less than this

| 5x6x9/2 | Don't do this sum until you have worked out the answer above |
|---|---|

Example 2 - the amount of salt to add is 600 grams more than

| 66 x 6 x 8 x 21 | Don't do this sum until you have worked out the answer above |
|---|---|