

## Maths Problem Solving Week 8

This week's problems are based on Firefly's iMaths Problem Solving Strategies samples.

The best way to solve this week's problems will be to work backwards.

Good Luck

### Senior – Melbourne's Got Talent

A song writing competition is being launched in Melbourne. After subtracting the cost of purchasing trophies and certificates, there is a total of \$19,200 prize money. First prize is \$9,000. Second prize is half of the first prize. Third prize is one third of second prize. After the three winners are awarded their prize money, the remaining money is shared between the 4<sup>th</sup> to 10<sup>th</sup> placegetters equally. How much money did the 8<sup>th</sup> place getter receive?

### Middle – Santa's Toys

Last night Santa delivered some toys. He is trying to work out how many toys he started with.

First he delivered half the toys to the orphanage.

Then he delivered 20 toys to the hospital.

Then he gave half of what was left to the cookie factory.

Lastly he gave three toys to the Jones children.

Now he has one toy left.

How many toys did Santa start with?

(Remember to work backwards – start with the one toy he has left. You will need to do the opposite operation as you work backwards. For example, if Santa gave half the toys to someone, as you work backwards you will need to do the opposite, which is doubling).

## Junior – Star Jumps

Yesterday I played a dice game where every time I rolled a 6 I had to do 7 star jumps. When I had finished playing I had done 42 star jumps. How many star jumps had I done when I threw my second last 6?

You might want to use this number chart to help you.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50