

Year 5 Extension Maths Word Problems Week 2 Term 4

1. Julia was going on an aeroplane (lucky Julia, before COVID). The plane had 7 seats in each row, 2 on each window side, with 3 seats in the centre between two aisles on each side of the centre seats. She was seated in row 72, this was third last row of the aeroplane. While waiting for the plane to take off, Julia imagined the city being evacuated on these planes.

How many planes would it take to evacuate a city with a population of 35 742 people?

What about Queanbeyan? The current population is 36 662.

What about Canberra? The current population is 462 213.



2. Susan wanted to start a healthy eating plan so that her weight was in the healthy eating range of 65 - 78kg for women her height. On day one, Susan recorded her weight at 80.6kg. On day 2, her weight decreased by 0.3kg. On day three, her weight increased by 0.1kg. On day four, her weight decreased by 0.3kg and the pattern repeated.

If Susan continued to lose and gain weight in this pattern, on which day will she weigh exactly 78kg and how long will it take her to reach the middle weight of healthy weight range?



3. Daria was excited about the cabaret she was performing at the local theatre, the Q. This theatre has an audience capacity of 346. There was going to be: evening show on Wednesday and Thursday, a matinee and evening show on Fridays, and a morning, matinee and evening show on the weekend.

If the theatre is full to capacity for each show, how many people with Daria perform to over four weeks?

4. Use these clues to find the number:

I am a three digit even number made using the digits, 6, 3 and 1

I can be divided evenly among eight different numbers, including myself and 1 (find all these factors to prove there is only eight).

The only odd number I can be divided by evenly, besides 1, is 17.

What number am I?

I am a four digit number and every number in my family is comprised of the four digits, 0, 4, 1 and 8.

I am one of only four odd numbers in my family - two of which have 8 factors and one of which has four factors (find these, such fun).

The two with 8 factors are both divisible by 11 and the with four factors is divisible by 31.

I am the only four digit prime number that can be made in my family.

What number am I?