

DANIEL'S GREAT FIGHT – SCENARIO CARDS

Daniel's chair can have balloons tied to it, to help it move upwards, and small weights attached to it, to help drag it downwards.

Each balloon moves Daniel's chair **UP** by 1 metre.

Each weight moves Daniel's chair **DOWN** by 1 metre.

Daniel's first journey

Here are the details of Daniel's first journey. After each part of the journey, describe where Daniel's chair would be.

- The chair is sitting on the ground, and Daniel adds five balloons to it.
- Then, Daniel adds three weights.
- Then, Daniel adds six balloons and four weights.
- Then, Daniel adds nine weights.
- Then, Daniel adds two balloons.

Daniel adds some balloons and adds some weights and finishes up at a position that can be represented as 'negative 6'. Suggest a number of balloons and weights that were added.

Daniel's second journey

Here are the details of Daniel's second journey. After each part of the journey, describe where Daniel's chair would be.

- The chair is sitting on the ground, and Daniel adds four balloons to it.
- Then, Daniel adds ten weights.
- Then, Daniel takes away 3 balloons.
- Then, Daniel takes away 4 weights.
- Then, Daniel adds 11 balloons and adds 3 weights.

Daniel takes away some balloons and takes away some weights and finishes up at a position that can be represented as 'zero'. Suggest a number of balloons and weights that were taken away.

Daniel visits your school - Recess

Daniel's journey takes him past your school. You see him float by your classroom at a height of 3 metres. His chair has some balloons and weights attached, but you can't tell how many.

Later on, at recess, you see Daniel again, and now he's 9 metres off the ground.

You know that two things were done to his chair:

- Some balloons were added.
- Some weights were added.

What is a possible number of balloons and weights that were added to the chair?

Daniel visits your school – Lunchtime

By lunchtime, you notice that he's now only 4 metres off the ground.

You know that Daniel did three things to his chair between recess and lunch:

- Some balloons were taken away.
- Some weights were added.
- Some balloons were added.

What is a possible number of balloons and weights that were added to or taken away from the chair?

Daniel visits your school – After School

After school, you're walking home on the school oval, and you see that Daniel's chair has floated down into a deep hole being dug on the oval. His chair is 6 metres **below** ground level.

To get to this point from where he was at lunch, you know that four things were done to this basket:

- Some balloons were taken away.
- Some weights were added.
- Some balloons were added.
- Some weights were taken away.

What is a possible number of balloons and weights that were added to and taken away from to the chair?