SOLVING LINEAR INEQUATIONS NOTES

For Year level: 10, 11

Author: Michael O'Connor

This material relates to:

Solve problems involving linear equations, including those derived from formulas(ACMNA235)

Solve linear inequalities and graph their solutions on a number line (ACMNA236)

List of Resources

1) Solving Linear In-equations I – Geogebra interactive and video
2) Solving Linear In-equations II – Geogebra interactive and video

This is where you can write down your observations and example solutions for later reference.

What are in-equations?

1) What is the difference between an equation and an in-equation?

2) When does the graph of an in-equation contain an "open" or hollow dot?

3) When does the graph of an in-equation contain a "closed" or solid dot?

4) The convention is to write the solution of an in-equation with the variable (x usually) on the left hand side. Explain why this might be so.

Example Solutions
Use the Geogebra Applets to generate examples of each of the three types below and then fill in the steps.

Example 1 – Where the coefficient of x is positive
Original In-Equation is:

Step 1:

Step 2:

Step 3:

Step 4:

Example 2 – Where the coefficient of x is negative
Original In-Equation is:

Step 1:

Step 2:

Step 3:

Step 4:

Example 3 – Where there are 2 x's in the question.
Original In-Equation is:

Step 0:

Step 1:

Step 2:

Step 3:

Step 4: