Functions Test 2 - Grade Breakdown

Question 1. (10 marks)

- 1 Mark for each true or false

Question 2. (8 marks)

- 4 marks for part (a),
  - 1 mark for each of mapping diagram, not surjective claim, not invertible b/c not surjective claim.
  - 1 mark for range.
- 4 marks for part (b),
  - 1 mark for each of mapping diagram, not injective claim, not invertible b/c not injective claim.
  - 1 mark for range.

Question 3. (13 marks)

- 5 marks for part (a)
  - 1 mark for each correct output.
  - 1 mark for domain formalization.
- 3 marks for part (b) for each step in determining original function.
- 5 marks for part (c),
  - 4 marks in correct outputs using formula from part (b).
  - 1 mark for final concluding statement.

Question 4. (7 marks)

- 6 marks for standard proof procedure, outputs in table and final statement.
  - Watch out for correctness errors in table and labelling.
- 1 for final concluding statement.

Question 5. (10 marks)

- 5 marks for part (a) for each step that is necessary.
- 5 marks for part (b) for each step that is necessary.

Question 6. (18 marks)

- 5 marks for part (a) for each of the five transformations described.
- 2 marks for part (b) for each x,y coordinate simplification.
- 5 marks for part (c) for each of the five coordinate transformations.

- 6 marks for part (d)
  - 5 marks for each labelled coordinate.
  - 1 marks for overall correctness.

Question 7. asf

Question 8. (18 marks)

- 6 marks for part (a) for each correct path string.
- 3 marks for part (b) for overall correctness,
  - Essential part of connecting the positions of U or R is key.
- 6 marks for part (c) for correct mapping diagram for each input.
- 3 marks for part (d) for overall correctness,