**A picture containing drawing

Description automatically generatedSolving Quadratics by Completing the Square GREEN**

**Question 1**

a) Express in the form , where and are integers.

b) Hence state the minimum point of the graph of .

c) Solve , giving your answer exactly.

**Question 2**

a) Express in the form , where and are integers.

b) Hence state the minimum point of the graph of .

c) Solve , giving your answer exactly.

**Question 3**

a) Express in the form , where and are integers.

b) Hence state the minimum point of the graph of .

c) Solve , giving your answer exactly.

**Question 4**

a) Express in the form , where , and are integers.

b) Hence state the minimum point of the graph of .

c) Solve , giving your answer exactly.

**A picture containing drawing

Description automatically generatedSolving Quadratics by Completing the Square AMBER**

**Question 1**

a) Express in the form , where and are integers.

Half the coefficient of to find .

Subtract to find .

b) Hence state the minimum point of the graph of .

The graph has a minimum point at .

c) Solve , giving your answer exactly.

Use your answer for part (a) and write it equal to .

**Question 2**

a) Express in the form , where and are integers.

b) Hence state the minimum point of the graph of .

c) Solve , giving your answer exactly.

**Question 3**

a) Express in the form , where and are integers.

b) Hence state the minimum point of the graph of .

c) Solve , giving your answer exactly.

**Question 4**

a) Express in the form , where , and are integers.

Factorise out the coefficient of from the first two terms to find .

Half the new coefficient of to find .

Subtract to find .

b) Hence state the minimum point of the graph of .

The graph has a minimum point at .

c) Solve , giving your answer exactly.

**A picture containing drawing

Description automatically generatedSolving Quadratics by Completing the Square RED**

**Question 1**

a) Express in the form , where and are integers.

Half the coefficient of to find .

Subtract to find .

b) Hence state the minimum point of the graph of .

The graph has a minimum point at .

c) Solve , giving your answer exactly.

Use your answer for part (a) and write it equal to .

**Question 2**

a) Express in the form , where and are integers.

b) Hence state the minimum point of the graph of .

c) Solve , giving your answer exactly.

**Question 3**

a) Express in the form , where and are integers.

b) Hence state the minimum point of the graph of .

c) Solve , giving your answer exactly.

**Question 4**

a) Express in the form , where , and are integers.

Factorise out the coefficient of from the first two terms to find .

Half the new coefficient of to find .

Subtract to find .

b) Hence state the minimum point of the graph of .

The graph has a minimum point at .

c) Solve , giving your answer exactly.