HIGHER

7.4 Quadratic Formula: 10-minute Pack

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Solve $4x^2 + 7x = 4$. Give your solutions correct to 2 decimal places.

(Total for Question 1 is 4 marks)

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2 Solve $2x^2 + 9x + 5 = 0$. Give your solutions correct to 3 decimal places.

(Total for Question 2 is 3 marks)

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3 Show that $x^2 - 2x + 5 = 0$ has no real solutions.

(Total for Question 3 is 2 marks)

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Mark scheme · 7.4 Quadratic Formula: 10-minute Pack

Question 1

rearranges to $4x^2 + 7x - 4 = 0$	**M1**
substitutes into the quadratic formula correctly	**M1**
one correct solution	**A1**
x = -2.20 or x = 0.45 cao	**A1**

Answer: x = -2.20 or x = 0.45

Question 2

substitutes into the quadratic formula correctly	**M1**
discriminant 41 evaluated	**M1**
x = -3.851 or x = -0.649 cao	**A1**

Answer: x = -3.851 or x = -0.649

Question 3

substitutes a = 1, b = -2, c = 5 into $b^2 - 4ac$	**M1**
-16 and a conclusion that it is negative	**A1**

Answer: $b^2 - 4ac = -16$, which is negative

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