

Name: _____

GCSE (1 – 9)

Factorising Harder Quadratics

Instructions

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**

Information

- The marks for each question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end

1 Factorise $2x^2 + 5x + 2$

.....
(Total for question 1 is 2 marks)

2 Factorise $2x^2 + 11x + 12$

.....
(Total for question 2 is 2 marks)

3 Solve $3x^2 + 17x + 10 = 0$

.....
(Total for question 3 is 3 marks)

4 Factorise $2x^2 - x - 1$

.....
(Total for question 4 is 2 marks)

5 Factorise $3x^2 - 11x + 6$

.....
(Total for question 5 is 2 marks)

6 Solve $4x^2 - 19x - 5 = 0$

.....
(Total for question 6 is 3 marks)

7 Factorise $2x^2 + 3x - 9$

.....
(Total for question 7 is 2 marks)

8 Factorise $2x^2 - 9x + 10$

.....
(Total for question 8 is 2 marks)

9 Solve $5x^2 + 11x - 12 = 0$

.....
(Total for question 9 is 3 marks)

10 Factorise $3x^2 + 16x + 21$

.....
(Total for question 10 is 2 marks)

11 Factorise $2x^2 - 21x + 54$

.....
(Total for question 11 is 2 marks)

12 Solve $5x^2 - 37x - 24 = 0$

.....
(Total for question 12 is 3 marks)

13 Factorise $6x^2 + 17x + 12$

.....
(Total for question 13 is 2 marks)

14 Factorise $9x^2 - 3x - 20$

.....
(Total for question 14 is 2 marks)

15 Solve $15x^2 - 22x + 8 = 0$

.....
(Total for question 15 is 3 marks)

16 Factorise fully $2x^2 - 98$

.....
(Total for question 16 is 2 marks)

17 Factorise fully $3x^2 - 12$

.....
(Total for question 17 is 2 marks)

18 Solve $5x^2 - 80 = 0$

.....
(Total for question 18 is 3 marks)

19 Factorise $x^2 + 2xy + y^2$

.....
(Total for question 19 is 2 marks)

20 Factorise $2x^2 + 13xy + 15y^2$

.....
(Total for question 20 is 2 marks)

21 Factorise $3x^2 - 17xy + 20y^2$

.....
(Total for question 21 is 2 marks)