

Name: _____

GCSE Maths

Multiplying Algebraic Fractions

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.
- Simplify each algebraic fraction fully.
- Show full working for each question.

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.

1. Multiply and simplify

$$\frac{3x}{5} \times \frac{10}{6x}$$

(Total 3 marks)

2. Multiply and simplify

$$\frac{x^2 - 16}{x + 4} \times \frac{x + 4}{x - 4}$$

(Total 3 marks)

3. Multiply and simplify

$$\frac{x^2 + 7x + 12}{x + 3} \times \frac{x + 2}{x + 4}$$

(Total 3 marks)

4. Multiply and simplify

$$\frac{x^2 - 9}{x^2 - 1} \times \frac{x + 1}{x - 3}$$

(Total 3 marks)

5. Multiply and simplify

$$\frac{x^2 + 5x + 6}{x^2 - 4} \times \frac{x - 2}{x + 3}$$

(Total 3 marks)

6. Multiply and simplify

$$\frac{x^2 - 4x + 4}{x^2 - 5x + 6} \times \frac{x - 3}{x - 2}$$

(Total 3 marks)

7. Multiply and simplify

$$\frac{2x^2 - 18}{x^2 - 9} \times \frac{x + 3}{x - 2}$$

(Total 3 marks)

8. Multiply and simplify

$$\frac{x^3 - 8}{x^2 - 4x + 4} \times \frac{x - 2}{x + 2}$$

(Total 3 marks)

9. Multiply and simplify

$$\frac{x^2 - 7x + 10}{x^2 - x - 20} \times \frac{x + 4}{x - 2}$$

(Total 3 marks)

10. Multiply and simplify

$$\frac{x^3 - x^2 - x + 1}{x^2 - 1} \times \frac{x - 1}{x + 1}$$

(Total 3 marks)