

Quadratic Fractions

Week 13

Lesson Time : 25 - 30 Minutes

Course : Higher

Grade : 7

Back to Basics

Core

Let's Do It!

GCSE Revision Video 64

- **Prior Checklist:** A pack of A5/A6 revision cards.

A pen.

- **Our Video Structure:**

Back to Basics: Quick re-cap.

Core: *Create* your own revision cards with exam style questions.

Let's Do It!: *Apply* your revision cards to another set of exam style questions.

Instructions: **Print out** this worksheet and watch the revision video simultaneously.

Pause and Play the video unlimited times to review your work and write the answers in the blank spaces. Once you have written your answers, check these with the tutorial answers, as explained in the video.

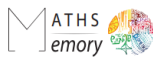
Create your OWN revision cards when prompted on the worksheet (Back to Basic and Core sections).

Apply your OWN revision cards (Let's Do It! section).




Self Assess yourself (Out of 10) on your revision planner after you have completed the revision video.

WATCH this revision video and **MANY** others on our **FULL** courses at www.mathsmemory.co.uk

Let's get started and create our Master revision card with this suggested template.

MATHS  **Maths Memory**

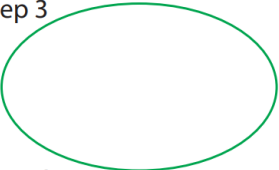
Learn:


-  Factorise simple expression
-  Factorise D.O.T.S expression
-  Factorise Quads expression


Topic: Quadratic Fractions

Date/week: _____


GRADE
7

Step 3 

Step 2 

Step 1 

Example(s):



Back to Basics- Starter questions to warm you up



Back to Basics Topic: Quadratic Fractions

Question 1

Factorise

a) $x^2 - 4$

b) $x^2 - 5x + 6$

c) $2x^2 - 8$



Question 1(Continued)

Factorise

d) $4x^2 - 25$

e) $3x^2 - 4x - 4$

f) $x^3 - 36x$

Let's get our revision card and create Section A. Look at video for guidance



Core- Create your revision cards with these exam style questions



Core 1

Topic: Quadratic Fractions

Question 1

Simplify

a) $\frac{x^2 + x - 6}{x^2 - 4}$

b) $\frac{x^2 - 5x + 6}{x^2 - 9}$

Grade

5 (2 Marks)

Grade

5 (2 Marks)



Core 2

Topic: Quadratic Fractions

Question 2

Simplify

$$\frac{3x^2 - 4x - 4}{9x^2 - 4}$$

Grade

7 (3 Marks)



Question 3

Simplify

$$\frac{5x + 10}{x^3 - 4x} \div \frac{3x - 1}{6x^2 - 14x + 4}$$

Grade

7 (3 Marks)

Question 4

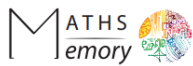
Show that

$$3 - \frac{x + 1}{x + 2} - \frac{x - 5}{x - 2} \text{ can be written in the form } \frac{x(x+a)}{(x+b)} \text{ where } a, b \text{ are integers}$$

Grade

8 (4 Marks)

Let's Do It! - Apply your revision cards to another set of exam style questions



Let's Do It! Topic: Quadratic Fractions

Question 1

Simplify

$$\frac{3x^2 - 9x}{x-4} \times \frac{x^2 - 16}{x^2 + x - 12}$$

Grade

6 (3 Marks)



Let's Do It! Topic: Quadratic Fractions

Question 2

Show that

$$\frac{6x^2 - 7x - 3}{9x^2 - 1}$$

can be written in the form $\frac{ax-b}{cx-d}$
(where a,b,c,d are integers).

Grade

7 (3 Marks)



Let's Do It! Topic: Quadratic Fractions

Question 3

Show that

$$3 - \left[\frac{(x+2) \div x^2 - 2x - 8}{x+3} \right] \text{ can be written in the form } \frac{ax-b}{cx-d}$$

(where a,b,c,d are integers).

Grade

8 (4 Marks)

Congratulations. You have completed this topic.

Now go back to your revision planner and rate yourself out of 10.