

Complete the Square

Week 19

Lesson Time : 20 - 25 Minutes

Course : Higher

Grade : 8

Back to Basics

Core

Let's Do It!

GCSE Revision Video 92

- **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.

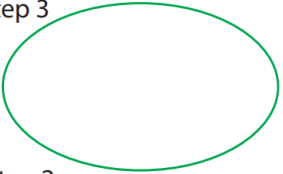
WATCH this revision video and **MANY** others on our **FULL** courses at www.mathsmemory.co.uk


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


MATHS
emory  **Maths Memory**

Learn:

-  $\equiv (x + p)^2 - q$. Final p and q
-  Find turning point
-  Sketch graph
-  ax^2 : $a \neq 1$

Step 3 

Step 2 


Step 1 

Example(s):

Topic: Complete the Square

Date/week: _____

GRADE 8



Core- Create your revision cards with these exam style questions



Core 1

Topic: Complete the Square

Question 1

a) Write $x^2 + 4x - 1$ in the form $(x + a)^2 + b$ where a and b are integers.

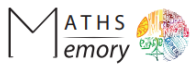
b) Write down the coordinates of the turning points of $y = x^2 + 4x - 1$

Grade

7 (3 Marks)



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



Core 2

Topic: Complete the Square

Question 2

a) Write $x^2 - 3x - 2$ in the form $(x + p)^2 + q$

b) Hence find the roots of $x^2 - 3x - 2 = 0$. Give your answer in surd form.

Grade

8 (3 Marks)



Question 2 (Continued)

c) Hence sketch the graph of $y = x^2 - 3x - 2$

Grade

8 (2 Marks)

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

My Tool Kit

Topic: B

Grade:

Question 3

a) Write $2x^2 - 10x + 3$ in the form $a(x + b)^2 + c$ where a , b and c are integers.

b) Hence or otherwise, write down the coordinates of the turning points

Grade

8 (4 Marks)

Question 3

c) Hence sketch the graph of $y = 2x^2 - 10x + 3$

Grade

8 (2 Marks)

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



Let's Do It!

Topic: Complete the Square

Question 1

a) Write $x^2 - 6x + 3$ in the form $(x + a)^2 - b$ where a and b are integers.

b) Write down the coordinates of the turning points of $y = x^2 - 6x + 3$

Grade

7 (3 Marks)



Question 2

a) Sketch the graph of $y = x^2 - 5x + 2$ using complete the square to find the roots.

Grade

8 (4 Marks)

Question 3

Show algebraically that $x^2 - 7x + 14$ has no real roots.

Grade
8 (3 Marks)

Congratulations. You have completed this topic.

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