## **EDEXCEL HIGHER CHECKLIST 2017**

## HIGHER - Grades 4 – 9

# Algebra

| I can |       |   |
|-------|-------|---|
| do    | Grade | Title                                       |
| this  |       |   |
|       |       | Approximate solutions to                    |
|       | 9     | equations using iteration.                  |
|       | 9     | Equation of a circle                        |
|       | 9     | Equation of a tangent                       |
|       | 8     | Algebra and Proof                           |
|       | -     | Gradients and area under a                  |
|       | 8     | graph                                       |
|       |       | Graphs of trigonometric                     |
|       | 8     | functions                                   |
|       |       | Quadratic equations                         |
|       | 8     | (completing the square)                     |
|       | 7     | Composite functions                         |
|       | ,     | ·   |
|       | 7     | Expand the product of two or more binomials |
|       |       |   |
|       | 7     | Factorising difficult quadratic             |
|       |       | expressions                                 |
|       | 7     | Geometric Sequences                         |
|       | 7     | Graphs of exponential functions             |
|       | 7     | Quadratic equations (needing                |
|       | ,     | re-arrangement)                             |
|       | 7     | Quadratic equations (quadratic              |
|       | ,     | formula)                                    |
|       | 7     | Real-life exponential graphs                |
|       | 7     | Represent quadratic inequalities            |
|       | _     | Simultaneous equations (non-                |
|       | /     | linear)                                     |
|       | 7     | Solve quadratic inequalities                |
|       | _     | Translations and reflections of a           |
|       | 7     | function                                    |
|       | _     | Turning points & completing the             |
|       | 7     | square                                      |
|       | 6     | Algebraic fractions                         |
|       | 6     | Identifying parallel lines                  |
|       | 6     | Inverse functions                           |
|       | 6     | Linear inequalities in two                  |
|       |       | variables                                   |
|       | 6     | nth term of a quadratic                     |
|       |       | sequence                                    |
|       |       | Quadratic equations                         |
|       | 6     | (factorisation)                             |
|       |       | •   |

| I can<br>do<br>this | Grade | Title   |
|---------------------|-------|---|
|                     | 6     | Quadratic equations (graphical methods)             |
|                     | 6     | Represent linear inequalities                       |
|                     | 6     | Simultaneous equations (linear)                     |
|                     | 5     | Algebraic argument                                  |
|                     | 5     | Algebraic terminology                               |
|                     | 5     | Cubic and Reciprocal graphs                         |
|                     | 5     | Deduce quadratic roots algebraically                |
|                     | 5     | Derive an equation                                  |
|                     | 5     | Equation of a line                                  |
|                     | 5     | Expand the product of two binomials                 |
|                     | 5     | Factorising quadratic expressions                   |
|                     | 5     | Fibonacci, quadratic and simple geometric sequences |
|                     | 5     | Graphical solution to equations                     |
|                     | 5     | Inequalities on number lines                        |
|                     | 5     | Linear equations                                    |
|                     | 5     | Quadratic graphs                                    |
|                     | 5     | Reciprocal real-life graphs                         |
|                     | 5     | Simplify indices                                    |
|                     | 5     | Simplify surds                                      |
|                     | 5     | Solve linear inequalities in one variable           |
|                     | 5     | Writing formulae and expressions                    |
|                     | 4     | Changing the subject                                |
|                     | 4     | Collecting like terms                               |
|                     | 4     | Expressions   |
|                     | 4     | Factorise single bracket                            |
|                     | 4     | Finding the equation of a line                      |
|                     | 4     | Graphs of linear functions                          |
|                     | 4     | Graphs of quadratic functions                       |
|                     | 4     | Linear equations one unknown                        |
|                     | 4     | Multiplying single brackets                         |
|                     | 4     | Non-standard real life graphs                       |
|                     | 4     | nth term of a linear sequence                       |
|                     | 4     | Number machines                                     |
|                     | 4     | Substitution  |
|                     | 4     | Using "y = mx + c"                                  |

### **EDEXCEL HIGHER CHECKLIST 2017**

# **Geometry and Measures**

| I can |       |                                  |
|-------|-------|----------------------------------|
| do    | Grade | Title                            |
| this  |       |                                  |
|       | 8     | Circle theorems                  |
|       | 8     | Vector arguments and proof       |
|       | 7     | Area of a triangle               |
|       | 7     | Cosine Rule                      |
|       | 7     | Pythagoras and trig 2D and 3D    |
|       | 7     | Sine Rule                        |
|       | 6     | Combined transformations         |
|       | 6     | Congruence and Similarity        |
|       | 6     | Standard trigonometric ratios    |
|       | 5     | Arc lengths and sectors          |
|       | 5     | Derive triangle results          |
|       | 5     | Enlargements and negative SF     |
|       | 5     | Loci                             |
|       | 5     | Pythagoras                       |
|       | 5     | Similarity and Congruence        |
|       | 5     | Standard constructions           |
|       | 5     | Surface Area                     |
|       | 5     | Trigonometric ratios             |
|       | 5     | Volume                           |
|       | 4     | Alternate and corresponding      |
|       | 4     | angles                           |
|       | 4     | Area of a circle                 |
|       | 4     | Areas of composite shapes        |
|       | 4     | Areas of triangles, trapezia and |
|       | 7     | parallelograms                   |
|       | 4     | Bearings                         |
|       | 4     | Circle terminology               |
|       | 4     | Circumference of a circle        |
|       | 4     | Congruent triangles              |
|       | 4     | Enlargements and fractional SF   |
|       | 4     | Perimeter of 2D shapes           |
|       | 4     | Plans and elevations             |
|       | 4     | Polygons                         |
|       | 4     | Solve geometrical problems       |
|       | 4     | Vector arithmetic                |
|       | 4     | Volume of prisms                 |

## **Statistics**

| I can<br>do<br>this | Grade | Title                                |
|---------------------|-------|--------------------------------------|
|                     | 6     | Boxplots                             |
|                     | 6     | Cumulative frequency                 |
|                     | 6     | Histograms with unequal class widths |
|                     | 6     | Quartiles and Interquartile Range    |
|                     | 5     | Histograms with equal class widths   |
|                     | 5     | Scatter graphs                       |
|                     | 4     | Comparing data using graphs          |
|                     | 4     | Comparing Distributions              |
|                     | 4     | Correlation                          |
|                     | 4     | Population                           |
|                     | 4     | Sampling                             |
|                     | 4     | Scatter Diagrams                     |
|                     | 4     | Time series                          |

# **Probability**

| l can<br>do | Grade | Title                             |
|-------------|-------|-----------------------------------|
| this        | 7     | Can divia and Dunkah ilita        |
|             | 7     | Conditional Probability           |
|             | 5     | Probability of dependent events   |
|             | 5     | Probability of independent events |
|             | 4     | Mutually exclusive sum            |
|             | 4     | Relative Frequency                |
|             | 4     | Tables and Grids                  |
|             | 4     | Theoretical Probability           |
|             | 4     | Unbiased Samples                  |
|             | 4     | Venn Diagrams                     |

#### **EDEXCEL HIGHER CHECKLIST 2017**

#### Number

| Lagra      |       |                                      |
|------------|-------|--------------------------------------|
| I can      | Crada | Title                                |
| do<br>this | Grade | Title                                |
| LIIIS      | 8     | Surds                                |
|            | 0     |                                      |
|            | 7     | Index Laws (negative and fractional) |
|            | 7     | Product rule                         |
|            | 7     |                                      |
|            |       | Recurring Decimals                   |
|            | 7     | Upper and lower bounds               |
|            | 6     | Finance 1                            |
|            | 6     | Powers and Roots                     |
|            | 6     | Product of prime factors             |
|            | 6     | Using Pi                             |
|            | 5     | Calculating with fractions           |
|            | 5     | Error intervals                      |
|            | 5     | Index Laws                           |
|            | 5     | Limits of accuracy                   |
|            | 4     | Adding and subtracting fractions     |
|            | 4     | Checking calculations                |
|            | 4     | Compound measures                    |
|            | 4     | Converting metric units              |
|            | 4     | Estimation                           |
|            | 4     | Fractions and percentages            |
|            | 4     | Fractions and ratio problems         |
|            | 4     | Interpret calculator displays        |
|            | 4     | LCM and HCF                          |
|            | 4     | Multiples and factors                |
|            | 4     | Multiplying fractions                |
|            | 4     | Operations                           |
|            | 4     | Order of operations                  |
|            | 4     | Powers                               |
|            | 4     | Rounding                             |
|            | 4     | Standard Form                        |
|            | 4     | Terminating decimals and             |
|            |       | fractions                            |
|            |       |                                      |

### Ratio, Proportion and rates of change

| I can<br>do<br>this | Grade | Title                                       |
|---------------------|-------|---|
|                     | 9     | Gradients and the rate of change            |
|                     | 7     | General iterative processes                 |
|                     | 6     | Direct and inverse proportion               |
|                     | 5     | Compound Units                              |
|                     | 5     | Gradient & the rate of change               |
|                     | 5     | Growth and decay                            |
|                     | 5     | Interpret Proportion                        |
|                     | 5     | Percentage change                           |
|                     | 5     | Problems with compound units                |
|                     | 5     | Scale factors and similarity                |
|                     | 5     | Simple Interest and Financial Maths         |
|                     | 5     | Solve Proportion Problems                   |
|                     | 4     | Compare Fractions, Decimals and Percentages |
|                     | 4     | Compare lengths, area, volume               |
|                     | 4     | Comparing quantities as a ratio             |
|                     | 4     | Division of a quantity as a ratio           |
|                     | 4     | Express one quantity as a % of another      |
|                     | 4     | Percentage change                           |
|                     | 4     | Problems involving ratio                    |
|                     | 4     | Proportion and ratio                        |
|                     | 4     | Ratio and fractions                         |
|                     | 4     | Ratio Sharing                               |

### Exam details:

**Edexcel GCSE Mathematics A - Higher** 

#### **Exam Dates:**

Paper 1 (non-calc) – Thursday 25<sup>th</sup> May 2017 AM

Paper 2 (calc) – Thursday 8<sup>th</sup> June 2017 AM

Paper 3 (calc) – Tuesday 13<sup>th</sup> June 2017 AM

All papers 90 mins each