



THIRD SPACE  
LEARNING

# Mathematics Paper Index Higher Tier

Edexcel

SET 1B

# The resource in a nutshell

This resource summarises the GCSE maths advance information provided by **Edexcel** for the 3 higher papers.

The topics in **bold** show which topics appear on both foundation and higher papers.

Numbers in **bold** show how the question numbers in the example papers relate to the specific topics detailed in the advance information for the November 2022 exam series.

The 3 practice papers in this pack are based on the topics from the advanced information for the November 2022 exam series.

*Please note, the papers are an example to help revision, these topics can be tested in other ways and other topics may be included in the actual papers.*

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The topics in **bold** appear on both the foundation and higher papers. The numbers in **bold** show the question number that the topic relates to.

	Number	Ratio	Algebra	Geometry	Probability	Statistics
Paper 1	<ul style="list-style-type: none"> <li>• Multiplication of decimals <b>7</b></li> <li>• Fraction arithmetic <b>4</b></li> <li>• One amount as a fraction of another</li> <li>• Multiples <b>14</b></li> <li>• Highest Common Factor <b>2</b></li> <li>• Product of prime factors <b>2</b></li> <li>• Laws of indices <b>1</b></li> <li>• Fractional indices <b>16</b></li> <li>• Simplification of surds <b>16</b></li> <li>• Calculate exactly with surds <b>20</b></li> </ul>	<ul style="list-style-type: none"> <li>• One quantity as a percentage of another <b>17</b></li> <li>• Write as a ratio <b>6</b></li> <li>• Use of ratio <b>6</b></li> <li>• Inverse proportion <b>13</b></li> <li>• Pressure <b>7</b></li> </ul>	<ul style="list-style-type: none"> <li>• Simplification <b>18</b></li> <li>• Substitute values <b>12</b></li> <li>• Factorise <b>18</b></li> <li>• Difference of two squares <b>18</b></li> <li>• Algebraic fractions <b>18</b></li> <li>• Linear simultaneous equations <b>21</b></li> <li>• Quadratic equation <b>10</b></li> <li>• Graph of cubic function <b>12</b></li> <li>• Graph of trigonometric functions <b>19</b></li> <li>• Geometric sequence <b>8</b></li> </ul>	<ul style="list-style-type: none"> <li>• Transformations <b>3</b></li> <li>• Angles in a triangle <b>9</b></li> <li>• Circle theorems <b>9</b></li> <li>• Area of a rectangle <b>7</b></li> <li>• Arc length <b>15</b></li> <li>• Volume and surface area of a cone <b>21</b></li> <li>• Volume and surface area of a sphere <b>21</b></li> <li>• Sine Rule <b>20</b></li> <li>• Exact trigonometric values <b>20</b></li> </ul>	<ul style="list-style-type: none"> <li>• Expected frequency <b>11</b></li> <li>• Combined independent events <b>11</b></li> <li>• Combined dependent events <b>14</b></li> </ul>	<ul style="list-style-type: none"> <li>• Histogram <b>17</b></li> <li>• Infer properties of population <b>5</b></li> </ul>
Paper 2	<ul style="list-style-type: none"> <li>• Money <b>6</b></li> <li>• Recurring decimal to fraction <b>12</b></li> <li>• Bounds <b>13</b></li> </ul>	<ul style="list-style-type: none"> <li>• Percentage profit <b>9</b></li> <li>• Depreciation <b>9</b></li> <li>• Reverse percentage <b>6</b></li> <li>• Direct proportion <b>4</b></li> <li>• Compound interest <b>6</b></li> <li>• General iterative processes <b>14</b></li> </ul>	<ul style="list-style-type: none"> <li>• Substitute values <b>16</b></li> <li>• Equations of parallel lines <b>18</b></li> <li>• Quadratic equation</li> <li>• Equation of a circle <b>18</b></li> <li>• Equation of a tangent to a circle <b>18</b></li> <li>• Coordinates <b>10</b></li> <li>• Quadratic graph <b>10</b></li> <li>• Region defined by linear inequalities <b>7</b></li> <li>• Gradient of a curve <b>10</b></li> <li>• Composite and inverse functions <b>16</b></li> <li>• nth term of a linear sequence <b>1</b></li> </ul>	<ul style="list-style-type: none"> <li>• Plan and elevation <b>3</b></li> <li>• Areas and volumes of similar figures <b>15</b></li> <li>• Area of a rectangle <b>2</b></li> <li>• Area of a triangle <b>2</b></li> <li>• Area of a sector <b>2</b></li> <li>• Trigonometry <b>8</b></li> <li>• Pythagoras' Theorem <b>17</b></li> <li>• Trigonometry in 3-D <b>17</b></li> </ul>		<ul style="list-style-type: none"> <li>• Scatter graph <b>5</b></li> <li>• Cumulative frequency graph <b>11</b></li> <li>• Box plot <b>11</b></li> <li>• Median, upper and lower quartiles <b>11</b></li> <li>• Capture-recapture method <b>14</b></li> </ul>
Paper 3	<ul style="list-style-type: none"> <li>• Standard form conversion <b>4</b></li> <li>• Standard form calculation <b>4</b></li> <li>• Error interval <b>9</b></li> <li>• Mathematical symbols</li> <li>• Product rule for counting <b>15</b></li> </ul>	<ul style="list-style-type: none"> <li>• Volume, speed conversions <b>8</b></li> <li>• One quantity as a percentage of another <b>15</b></li> <li>• Write as a ratio <b>1</b></li> <li>• Share in a ratio <b>1</b></li> <li>• Use of ratio <b>1</b></li> <li>• Density <b>16</b></li> </ul>	<ul style="list-style-type: none"> <li>• Simplification <b>11</b></li> <li>• Change subject of a formula <b>5</b></li> <li>• Laws of indices <b>18</b></li> <li>• Expand brackets <b>11</b></li> <li>• Completing the square <b>17</b></li> <li>• Algebraic fractions <b>21</b></li> <li>• Turning point <b>17</b></li> <li>• Transformation of functions <b>19</b></li> </ul>	<ul style="list-style-type: none"> <li>• Similar triangles <b>2</b></li> <li>• Combined transformations <b>10</b></li> <li>• Congruent triangles <b>14</b></li> <li>• Angles on a straight line <b>14</b></li> <li>• Angles in a triangle <b>2</b></li> <li>• Circle theorems <b>14</b></li> <li>• Angles of a polygon <b>12</b></li> <li>• Area of a triangle <b>20</b></li> <li>• Volume of a cylinder <b>6</b></li> <li>• Cosine Rule <b>20</b></li> <li>• Vector geometry <b>22</b></li> </ul>	<ul style="list-style-type: none"> <li>• Frequency tree <b>1</b></li> <li>• Tree diagram <b>7</b></li> <li>• Combined events <b>7</b></li> <li>• Expected frequency <b>7</b></li> </ul>	<ul style="list-style-type: none"> <li>• Cumulative frequency graph <b>13</b></li> <li>• Mean <b>3</b></li> </ul>

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