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Mathematics Paper Index Higher Tier

AQA

SET 1A

The resource in a nutshell

This resource summarises the GCSE maths advance information provided by **AQA** for the 3 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 Summer 2022 exam series.

The 3 practice papers in this pack are based on the topics from the advanced information for the Summer 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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Topics in **bold** appear on both tiers - some of these may include the overlap questions that appear on both papers.

	Number	Ratio	Algebra	Geometry	Probability	Statistics
Paper 1	<ul style="list-style-type: none"> Decimal arithmetic <u>1</u> Fraction arithmetic <u>6</u> Fraction of a number <u>7</u> Value as fraction of another <u>2</u> Recurring decimals as fractions <u>24</u> Percentage as operator <u>3</u> Laws of indices <u>13</u> Standard form conversion and calculation <u>11</u> Surds simplification <u>26</u> 	<ul style="list-style-type: none"> Ratio in simplest form <u>2</u> Proportion problem <u>22</u> 	<ul style="list-style-type: none"> Equation of a straight line <u>19</u> Linear equations <u>10</u> Identity <u>5</u> Simplification of algebraic fraction <u>23</u> Simplification <u>15</u> Factorisation of quadratic <u>23</u> Change subject <u>18</u> Recognise graphs <u>14</u> Sketch function <u>29</u> Speed time <u>20</u> Inequality region <u>12</u> Interpret graphs <u>8</u> Algebraic sequences <u>15</u> 	<ul style="list-style-type: none"> Congruence <u>30</u> Prism <u>9</u> Faces <u>9</u> Exact trigonometric values <u>4</u> Sector of a circle <u>27</u> Vector geometry <u>28</u> Constructions: region <u>16</u> 	<ul style="list-style-type: none"> Venn diagram <u>17</u> Tree diagram <u>25</u> Expected value <u>25</u> Independent events <u>25</u> 	<ul style="list-style-type: none"> Cumulative frequency <u>21</u>
Paper 2	<ul style="list-style-type: none"> Prime number <u>1</u> Cube number <u>18</u> Reciprocal <u>22</u> Decimal places <u>18</u> Bounds <u>24</u> Fractions: products <u>6</u> Negative indices <u>22</u> 	<ul style="list-style-type: none"> Share into a ratio <u>23</u> Ratio on a line <u>23</u> Fraction to percentage <u>1</u> Time conversion <u>16</u> Equation to percentage <u>3</u> Rate of output <u>16</u> Pressure <u>25</u> Percentage increase <u>7</u> Percentage decrease <u>14</u> 	<ul style="list-style-type: none"> Equation of a circle <u>5</u> Linear equations <u>12</u> Quadratic equations <u>19</u> Number line inequality <u>8</u> Factorisation of quadratic <u>19</u> Multiply out <u>12</u> Completing the square <u>26</u> Coordinate problem <u>26</u> Perpendicular lines <u>20</u> Turning point <u>26</u> Inverse functions <u>2</u> Triangular numbers <u>9</u> 	<ul style="list-style-type: none"> Area/volume: compound shape, cone, hemisphere <u>16, 25</u> Volume scale factor <u>4</u> Plan <u>10</u> Pythagoras <u>13</u> Time <u>16</u> Geometric proof 	<ul style="list-style-type: none"> Relative frequency <u>15</u> Expected value <u>15</u> Notation <u>1</u> 	<ul style="list-style-type: none"> Estimation from sample <u>21</u> Pie chart <u>17</u> Mean <u>11</u>
Paper 3	<ul style="list-style-type: none"> Highest common factor <u>1</u> Lowest common multiple <u>1</u> Error interval <u>11</u> Ordering decimals <u>4</u> Recurring decimals <u>4</u> Product rule for counting <u>15</u> 	<ul style="list-style-type: none"> Share into a ratio <u>6</u> Average speed <u>10</u> Population density <u>2</u> Percentage increase <u>7</u> Compound interest <u>7</u> 	<ul style="list-style-type: none"> Quadratic equations Simultaneous linear/quadratic <u>24</u> Simplification <u>20</u> Triple bracket <u>20</u> Factorisation <u>20</u> Quadratic (manipulation) <u>24</u> Graphs: roots, turning point <u>9</u> Quadratic graph <u>9</u> Exponential graph <u>3</u> Composite functions <u>21</u> Arithmetic sequence <u>5</u> Geometric sequence <u>14</u> nth term <u>5</u> 	<ul style="list-style-type: none"> Area/volume: compound shape, cylinder <u>16</u> Quadrilateral <u>18</u> Circle theorems <u>18</u> Trigonometry <u>18</u> Sine/cosine rule <u>22</u> Vector arithmetic <u>12</u> Bearings <u>22</u> 	<ul style="list-style-type: none"> Independent events <u>19</u> 	<ul style="list-style-type: none"> Two-way table <u>13</u> Histogram <u>23</u> Box plot <u>17</u> Median, quartiles <u>17</u> Interquartile range <u>17</u> Line of best fit <u>8</u> Outlier <u>8</u>

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