

Teacher notes

Students work in groups of 3 or 4 (no more) since they do a lot of brainstorming. I find that giving the answers after each round works better than trying to do the whole lot in an hour. **The slide for Round 4 should be printed beforehand.**

<p>Round 1</p> <p>Students can only use the 12 numbers shown. Click after 10 seconds to move onto the next question. Let them know that there is often more than one answer and each answer gets a point.</p>	<ol style="list-style-type: none"> 1. $4+13$, $8+9$ 2. 4×5 3. $27-24$, $20-17$, $16-13$, $11-8$, $8-5$ 4. $25 \div 5$, $20 \div 4$ 5. $4+16$, $9+11$ 6. 4×25, 5×20 7. $25-5$, $24-4$ 8. $16 \div 8$, $8 \div 4$ 9. 4, 8, 16, 20, 24 10. 4, 9, 16, 25 																																				
<p>Round 2</p>	<ol style="list-style-type: none"> 1. rectangle 2. triangle, integral 3. negative 4. billion (US 1,000,000,000 UK 1,000,000,000,000) 5. height 6. Pythagoras 																																				
<p>Round 3</p>	<p>Trapezium, cube, octagon, right-angled isosceles triangle</p>																																				
<p>Round 4</p>	<table border="1" data-bbox="849 1106 1316 1397"> <tbody> <tr><td>2</td><td>6</td><td>4</td><td>3</td><td>1</td><td>5</td></tr> <tr><td>1</td><td>3</td><td>5</td><td>2</td><td>4</td><td>6</td></tr> <tr><td>3</td><td>5</td><td>1</td><td>6</td><td>2</td><td>4</td></tr> <tr><td>6</td><td>4</td><td>2</td><td>5</td><td>3</td><td>1</td></tr> <tr><td>4</td><td>2</td><td>6</td><td>1</td><td>5</td><td>3</td></tr> <tr><td>5</td><td>1</td><td>3</td><td>4</td><td>6</td><td>2</td></tr> </tbody> </table>	2	6	4	3	1	5	1	3	5	2	4	6	3	5	1	6	2	4	6	4	2	5	3	1	4	2	6	1	5	3	5	1	3	4	6	2
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<p>Round 5</p> <p>You might want to talk a bit about one of these mathematicians or ask students to research and write a couple of paragraphs about any one of them. turnbull.mcs.st-and.ac.uk/~history/ is a great site for loads of history and images</p>	<ol style="list-style-type: none"> 1. Gauss - 18th century German 2. Pascal - 17th century French 3. Ramanujan - 20th century Indian 4. Abel - 19th century Norwegian 																																				
<p>Round 6</p>	<ol style="list-style-type: none"> 1. 5, 11, 17, 23, 29, ... 35, $6n - 1$ 2. 2, 3, 5, 7, 11, 13, ... 17, nth prime number 3. 1, 8, 27, 64, ... 125, n^3 																																				
<p>Round 7</p>	<p>Kite</p>																																				