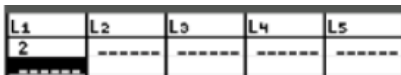




Lists as Spreadsheets on the TI-84

TI PROFESSIONAL DEVELOPMENT

STUDENT

<p>1. We are going to use Euclid's formula to generate Pythagorean Triples. We will type in just one number into list L1 and lists L2 through L5 will automatically populate with calculations (that are 'locked'). Here the lists function as spreadsheets do.</p>	<p>2. Euclid's formula m and n are whole numbers that have different parity, that is, one is even and the other must be odd. $m > n$. Once m and n are listed, here is how the 'triples' are created: $m^2 - n^2$ $2 \cdot m \cdot n$ $m^2 + n^2$</p>	<p>3. Clear all the lists L1 – L6. Into list L1(1) enter '2'.</p> 
<p>4. At the very top of list L2, where the name L2 is, type the following: <code>L2="L1-1"</code></p> <p>To do so, here is what you type: alpha + 2nd 1 - 1 alpha + enter</p>	<p>5. At the very top of list L3, type the following: <code>L3="L1^2-L2^2"</code> enter</p>	<p>6. At the very top of list L4, type the following: <code>L4="2*L1*L2"</code> enter</p>
<p>7. At the very top of list L5, type the following: <code>L5="L1^2+L2^2"</code> enter</p> <p>Write the triple that was generated below:</p>	<p>8. To generate more triples: Move to cell A(2) and type 3 then enter.</p> <p>Write the triple that was generated below:</p>	<p>9. Generate even more triples by typing 4 into cell A(3), 3 into cell A(4), and so on. Write the triples that were generated below:</p>



Lists as Spreadsheets on the TI-84

TI PROFESSIONAL DEVELOPMENT

STUDENT

<p>10. We will do a second set of lists as spreadsheets using locked formulas.</p> <p>Clear all the lists. The best way to do this is to go to the Catalog and choose ClrAllLists and press <input type="button" value="enter"/></p> <pre>ClockOn ClrAllLists ClrDraw</pre> <p>Doing this also clears out the locked formulas easily.</p>	<p>11. Into cell A(1), enter the number '1'.</p> <p>We are going to have the spreadsheet generate the perfect squares in L2, the perfect cubes in L3, the 4th powers in L4, and the 5th powers in L5.</p>	<p>12. At the very top of list L2, where the name L2 is, type the following:</p> <pre>L2="L1^2"</pre> <p><input type="button" value="enter"/></p>
<p>13. . At the very top of list L3, type the following:</p> <pre>L3="L1^3"</pre> <p><input type="button" value="enter"/></p> <p>Note: after typing the exponent '3', press the right arrow to put the cursor down, before typing the double quotes.</p>	<p>14. . At the very top of list L4, type the following:</p> <pre>L4="L1^4"</pre> <p><input type="button" value="enter"/></p> <p>Note: after typing the exponent '4', press the right arrow to put the cursor down, before typing the double quotes.</p>	<p>15. At the very top of list L5, type the following:</p> <pre>L5="L1^5"</pre> <p><input type="button" value="enter"/></p> <p>Note: after typing the exponent '5', press the right arrow to put the cursor down, before typing the double quotes.</p>
<p>16. Enter the number '2' into cell A(2) and press <input type="button" value="enter"/></p>	<p>17. Press other numbers into A(3), A(4), A(5), ... and watch the numbers generate as in a spreadsheet.</p>	