

Name _____

Mathematical Ideas – Math. 104

Please read “Welcome!” and “Surfing the Book” (pp. ix – xxvi in *Heart of Mathematics*) and flip through both texts (especially paying attention to the “Notes” section of *What is Mathematics Really?*). Mark exactly six topics that you would like to learn about in this course. One of them will turn into your final project, so choose wisely. Many of the others will be our course content. Please return this form to class on the second day of class, Friday, January 21.

[H – *Heart of Mathematics* ? – *What is Mathematics Really?*]

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|--|---|
| <input type="checkbox"/> Numerical Patterns in Nature [H2.2] | <input type="checkbox"/> Random Thoughts [H7.3] |
| <input type="checkbox"/> Prime Cuts of Numbers [H2.3] | <input type="checkbox"/> Down for the Count [H7.4] |
| <input type="checkbox"/> Crazy Clocks/Checkout Bars [H2.4] | <input type="checkbox"/> Collecting Data [H7.5] |
| <input type="checkbox"/> Secret Codes/Become a Spy [H2.5] | <input type="checkbox"/> The Average American [H7.6] |
| <input type="checkbox"/> The Irrational Side Numbers [H2.6] | <input type="checkbox"/> Peas and Hypotheses [H7.7] |
| <input type="checkbox"/> Get Real [H2.7] | <input type="checkbox"/> Great Expectations [H8.1] |
| <input type="checkbox"/> Comparing the Infinite [H3.2] | <input type="checkbox"/> Risk [H8.2] |
| <input type="checkbox"/> The Missing Member [H3.3] | <input type="checkbox"/> Money Matters [H8.3] |
| <input type="checkbox"/> Travels Toward Infinities [H3.4] | <input type="checkbox"/> Peril at the Polls [H8.4] |
| <input type="checkbox"/> Straightening up the Circle [H3.5] | <input type="checkbox"/> Cutting Cake [H8.5] |
| <input type="checkbox"/> A View of an Art Gallery [H4.2] | <input type="checkbox"/> arithmetic [? p. 254] |
| <input type="checkbox"/> The Sexiest Rectangle [H4.3] | <input type="checkbox"/> logic [? pp. 254-6] |
| <input type="checkbox"/> Soothing Symmetry [H4.4] | <input type="checkbox"/> sets [? pp. 256-8] |
| <input type="checkbox"/> The Platonic Solids [H4.5] | <input type="checkbox"/> old geometry [? pp. 258-262] |
| <input type="checkbox"/> The Shape of Reality? [H4.6] | <input type="checkbox"/> new geometry [? pp. 262-8] |
| <input type="checkbox"/> The Fourth Dimension [H4.7] | <input type="checkbox"/> imaginary numbers [? pp. 268-286] |
| <input type="checkbox"/> The Nonstop Band [H5.2] | <input type="checkbox"/> basic calculus [? pp. 286-305] |
| <input type="checkbox"/> Feeling Edgy? [H5.3] | <input type="checkbox"/> advanced calculus [? pp. 305-310] |
| <input type="checkbox"/> Knots and Links [H5.4] | <input type="checkbox"/> more logic [? pp. 310-6] |
| <input type="checkbox"/> Fixed Points and Rainy Days [H5.5] | <input type="checkbox"/> Early mainstream philosophy [? 6] |
| <input type="checkbox"/> The Dynamics of Change [H6.2] | <input type="checkbox"/> Peak mainstream philosophy [? 7] |
| <input type="checkbox"/> The Beauty of Fractals [H6.3] | <input type="checkbox"/> Late mainstream philosophy [? 8] |
| <input type="checkbox"/> The Art of Fractals [H6.4] | <input type="checkbox"/> Post mainstream philosophy [? 9] |
| <input type="checkbox"/> Predetermined Chaos [H6.5] | <input type="checkbox"/> Old humanist philosophy [? 10] |
| <input type="checkbox"/> Between Dimensions [H6.6] | <input type="checkbox"/> Modern humanist philosophy [? 11] |
| <input type="checkbox"/> Predicting the Future [H7.2] | <input type="checkbox"/> Current humanist philosophy [? 12] |