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| Unit 5: Trigonometric Equations and Graphs |
| **Day 1** | **Properties of Periodic Functions** |
| Learning Goals | I can identify periodic functions from the graph or the table of values. | 1 | 2 | 3 |
| I can identify max, min, amplitude, axis of curve and period from a graph. | 1 | 2 | 3 |
| I can continue the pattern of a periodic function. | 1 | 2 | 3 |
| **Day 2** | **Graph of the Sine, Cosine and Tangent Functions** |
| Learn-ing Goals | I can graph the Sine Curve and identify all of its properties. | 1 | 2 | 3 |
| I can graph the Cosine Curve and identify all of its properties. | 1 | 2 | 3 |
| I can identify the Tangent Graph |  |  |  |
| **Day 3** | **Transformations of the Sine and Cosine Curve** |
| Learning Goals | I can identify a change in the axis of curve/vertical shift. | 1 | 2 | 3 |
| I can identify a phase shift/horizontal shift. | 1 | 2 | 3 |
| I can identify a change in amplitude/vertical stretch/compression. | 1 | 2 | 3 |
| I can identify a change in the period/horizontal stretch/compression. | 1 | 2 | 3 |
| I can identify a horizontal or vertical reflection. | 1 | 2 | 3 |
| **Day 4** | **Writing a Sine/Cosine Equation** |
| Learning Goals | I can take the properties for a periodic function from the graph and write an equation. | 1 | 2 | 3 |
| I can take the properties of a periodic function from a table of values and write an equation. | 1 | 2 | 3 |
| I can take the properties of a periodic function from a word problem and write an equation. | 1 | 2 | 3 |
| **Day 5** | **Solving Equations with k**$\ne $**1** |
| Learning Goals | I can find the first set of solutions when solving an equation. | 1 | 2 | 3 |
| I can apply the period of the function to determine the number of cycles needed. | 1 | 2 | 3 |
| I can apply the period of the function to determine the solutions in the next cycle. | 1 | 2 | 3 |
| **Day 6** | **Problem Solving with Sine/Cosine Curves** |
| Learn-ing Goals | I can write equations to answer questions about a given scenario. | 1 | 2 | 3 |
| I can solve equations I have created. | 1 | 2 | 3 |
| I can evaluate solutions to ensure they are valid. | 1 | 2 | 3 |
| **Day 7** | **Review** |
| **Day 8** | **Test** |

**Unit 5 – Periodic Functions**

Day 1 – Nelson Page 352 #s 2, 3, 6, 7, 8 & 12

Day 2 – Complete Handout

Day 3 – Complete Handout

Day 4 – Quiz

 Nelson Page 391 #s 2, 3, 4, 7 & 8

Day 5 – Homework Handout

Day 6 – Nelson Page 398 #s 1, 2, 4 & 8

Day 7 – Nelson Page 404 #s 1 – 4, 5 (use desmos), 6 & 8 – 13

Day 8 – TEST