Pre-Calculus $1^{\text {st }}$ Semester Assignment Sheet

| Topic | Assignment |
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| Chapter 1: Functions and Graphs | Blitzer/ATA |
| 1.1 Graphs and Graphing Utilities | 1. Blitzer \#75-82 <br> 2. Matching graphs with stories |
| 1.2 Domain \& Range, Extrema | 1. Matching activity <br> 2. D/R Worksheet <br> 3. Extrema Worksheet <br> 4. Blitzer \#65-77all, 79-91 |
| 1.3 Increasing/Decreasing/Constant Positive/Negative/Zero Even/Odd Functions | 1. Increasing/Decreasing Worksheet <br> 2. Positive/negative, zeros worksheet <br> 3. Blitzer \#1-16, 17-27 odds, 29-32, 33, 35 <br> 4. Increasing/Decreasing Matching Activity <br> 5. Even/odd Functions worksheet |
| 1.5 Rate of Change | 1. ATA unit $2 \mathrm{~h} / \mathrm{w} \# 5$ <br> 2. Math lib- in groups of 2-3 |
| Mid Term Exam- Mid Ch 1Test |  |
| 1.3 Piecewise Functions | 1. Foldable <br> 2. Blitzer 45, 51, 53, 54 |
| 1.6 Transformation | 1. Ata Unit $2 \mathrm{~h} / \mathrm{w}$ \#6 Parent Functions and Transformations <br> 2. Blitzer \#17-31 odds, 53-117 odds <br> 3. Ata Unit $2 \mathrm{~h} / \mathrm{w} \# 7$ Graphing Functions |
| 1.7 Combinations of Functions | 1. Blitzer \#1-31 every other odd, $35,39,41,45,49,53$, 57, 61, 65, 67, 71-79 odds <br> 2. ATA Unit $2 \mathrm{~h} / \mathrm{w} \# 9$ <br> 3. Mazes <br> 4. Coloring Activity |
| 1.8 Inverse | Blitzer \#11, 13, 23-27 odds, 29-39, 41-47 odds |
| End of Ch 1 Test |  |
| Chapter 2: Polynomial Functions |  |
| 2.2 Quadratic Functions | Blitzer 1-8 all, 9-29 odds |
| 2.3 Polynomial Functions \& Graphs | Blitzer \#15-31 odds, 41, 43, 47 |
| 2.4 Dividing Polynomials, Remainder Factor Theorem | Blitzer 1-45 every other odd |
| 2.5 Zeros of Polynomial Functions | 1. Blitzer \#1, 3, 9-13 odds, 19, 23, 25, 27, 31 <br> 2. Matching Activity |
| 2.6 Rational Functions and Graphs | Blitzer 1-7 odds, 9-21, 23-35 odds, 49, 51, 53 |
| Chapter 3: Exponential and Log Functions |  |
| 3.1 Graphing Exponential Functions | Blitzer \#25-45 every other odd, 53, 73 ATA Unit $4 \mathrm{~h} / \mathrm{w}$ \#1 |
| 3.2 Intro to Logs | ATA Unit $4 \mathrm{~h} / \mathrm{w}$ \#4 |
| 3.3 Properties of Log | ATA Unit $4 \mathrm{~h} / \mathrm{w}$ \#5 |


| 3.4 Exponential and Log Equations | 1. ATA Unit 4 h/w \#7, 8, 9 <br> 2. Math Lib <br> 3. Scavenger Hunt |
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| Growth and Decay Word Problems | ATA Unit 4 h/w \#2 and 11 |
| Compound Interest | ATA Unit 4 h/w \#3 |
| 3.5 Graphing Log Functions | ATA Unit 4 h/w \#6 |

Trig Assignment Sheet $2^{\text {nd }}$ Semester

| Topic: | Resource: | Assignment |
| :---: | :---: | :---: |
| 1. Angle Measures | Ata 5.1 | 1. Ata- odds, <br> 2. Sorgenfry pg. 4 \#47-57 odds, wksht <br> 3. Degrees/Radian Maze |
| 2. Trig Functions | Ata 5.4 | all |
| 3. Solving Right Triangle. (Lab) | Ata 5.5 <br> Blitzer 4.3 | Ata- all Blitzer- \#55-59 odds |
| 4. Trig Functions of Arbitrary Angles/Unit Circle. (project) | Ata 5.6 Sorgenfry | Ata 1-4 all Sorgenfry- page 27 \#1-6 all, 23-37 odds <br> 3. Unit Circle Maze |
| 5. Graphing Sine/Cosine. (project) | Handout | 4.2 \#3, $7,9,5,10,13,19,15,25,27,35,37$ |
| 6. Graphing the other 4 Functions | Handout | 4.2 \#43, 47, 48, 49,55, 59 |
| 7. Phase Shift (horizontal translation) | Handout | $\begin{aligned} & 4.3 \# 3,9,11,19,25,27,31,35,39,43,45 \text {, } \\ & 49,51 \end{aligned}$ |
| 8. 4.1 Law of Cosine | Sorgenfry | 4.1 Pg. 128 \#1-13 odds, 17,21,24 (1.52X10-8), 41 |
| 9. 4.2 Law of sine | Sorgenfry | 4.2 Pg 133 \#1-17 odds except 13, 18 ( 14.6 m ), 20 (105 m), 27, extra credit \#28 |
| 10. 4.4 Area of Triangles | Sorgenfry | 4.4 Pg. 144 \#1-7 odds, 15, 17-25 odds, 26 (43.8 sq. units) <br> 2. Math Lib |
| 11. 3.1 Simplifying Trig Expressions. | Sorgenfry | Pg 87 \#1-17 odds, 23, 27, 29, 35 |
| 12. 3.2 Proving Trig Identities | Sorgenfry | Pg 91 \#1, 3, 17, 23, 29, 35, 41, 45, 47, 49 |
| 13. 3.3 Sum/Diff Formulas | Sorgenfry | Pg 96 \#1-5 odds, 9, 13-23 odds |
| 14. 3.4 Double and Half Angle Formulas | Sorgenfry | Pg 102 31, 33, 37, 39 and handout |
| 15. 3.5 Tangent Formulas | Sorgenfry | Pg. 106 \#1, 5-15 odds, 19, 21 |
| 16. 3.6 Trig Equations | Sorgenfry | Pg. 112 \#1-15 odds, 33 |
| Project- Create a roller coaster incorporating 3 parent functions to include trig. Counts as a test grade |  |  |
| Trig Escape Room Activity |  |  |

