# IBMYP A2T Unit 9 Test Review (Targets 4, 5, & 7) Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# *YOU MAY NOT USE A CALCULATOR ON ANY PORTION OF THIS!* Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block \_\_\_\_\_

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| **OBJ: Know the Unit Circle.**  *Fill in the unit circle below with degrees, radians, and coordinates. Challenge: Fill in tangent values too!*  ( , )  ( , )  ( , )  ( , )  ( , )  ( , )  ( , )  ( , )  ( , )  ( , )  ( , )  ( , )  ( , )  ( , )  ( , )  ( , ) | | | | | | |
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| **OBJ: Know how to evaluate a function using the unit circle.**  *1-21: Evaluate each function below. Show your work and circle your final answer****.*** | | | | | | |
| **1.** csc 315° | | **2.** cos −225° | | | **3.** tan | |
| **4.**  cot | | **5.** sec | | | **6.** sin | |
| **7.** cot | | **8.** tan −6 | | | **9.** csc 300° | |
| **10.** sin | | **11.** cos (−720o) | | | **12.** cot | |
| **13.** sec 225o | | **14.** sin | | | **15.** csc | |
| **16.** cos | | **17.** sec 510o | | | **18.** tan −45o | |
| **19.** | | **20.** | | | **21.** | |
| **OBJ: Know how to find the inverse of a function using the unit circle or drawing a triangle.**  *22-33: Find the exact value of each. Show your work and circle your final answer.* | | | | | | |
| **22.** Sin-1 | | **23.** csc (Arcsin ) | | | **24.** sin (Tan-1 () | |
| **25.** Sin-1 (1) | | **26.** tan (Arccos ) | | | **27.** cot (Sin-1 ) | |
| **28.** Sin-1 (cos) | | **29.** Arctan (−1) | | | **30.** Cos-1 (sin ) | |
| **31.** Arccos | | **32.** csc | | | **33.**  sin | |
| **OBJ: Know the range of the inverse functions.** 34-36: *State the restricted range of each inverse function.* | | | | | | |
| **34.** y = Cos-1 x | **35.** y = Sin-1 x | | | **36.** y = Tan-1 x | | |
| **OBJ: Know how to graph trigonometric functions.**  *37-42: Graph each function, labeling all parts and defining each characteristic (if applicable) below.* | | | | | | |
| **37.** y = sin 2x − 2 | | | Domain: | | | Range: |
| Period: | | | Amplitude: |
| Phase Shift: | | | Vertical Shift *(Midline Eq.):* |
| **38.** y = 1.5cos (x − 90°) | | | Domain: | | | Range: |
| Period: | | | Amplitude: |
| Phase Shift: | | | Vertical Shift *(Midline Eq.):* |
| **39.** y = -3 tan 2x − 1 | | | Domain: | | | Range: |
| Period: | | | Amplitude: |
| Phase Shift: | | | Vertical Shift *(Midline Eq.):* |
| **40.** y = -2 cos 3x + 3 | | | Domain: | | | Range: |
| Period: | | | Amplitude: |
| Phase Shift: | | | Vertical Shift *(Midline Eq.):* |
| **41.** y = 2 sin 3(x + 180°) | | | Domain: | | | Range: |
| Period: | | | Amplitude: |
| Phase Shift: | | | Vertical Shift *(Midline Eq.):* |
| **42.** y = tan (x − 45°)  x  y | | | Domain: | | | Range: |
| Period: | | | Amplitude: |
| Phase Shift: | | | Vertical Shift *(Midline Eq.):* |

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| **OBJ: Know how to solve trigonometric equations.**  *43 – 45: Solve each equation for**if 0o <**< 360o. Write your final answers in ascending order.* | | |
| **43.** 2 sin = | **44.** 2 tan= -2 | **45.** 4 cos2 - 3 = 0 |
| *46-48: Solve each equation for**if 0 < x < 2. Write your final answers in ascending order.* | | |
| **46.** cos + 2 sincos= 0 | **47.** 4 cos  - = 6 cos | **48.** sin2 - 1 = 0 |