# 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 |