

NAME: \_\_\_\_\_

PERIOD: \_\_\_\_\_

INVERSE TRIG WORKSHEET

GIVE ALL SOLUTIONS  $t$  TO THESE QUESTIONS, IF ANY.

1. WHEN IS  $y = 9$ , GIVEN

$$y = 7 \cos(2t) + 3$$

FOR  $0 \leq t \leq \pi$

a, USE ALGEBRA TO FIND EQUATIONS FOR  $t$

b, FIND  $t$  VALUES USING CALCULATOR

TWO  $t$  VALUES: WHAT IS ALGEBRAIC RELATIONSHIP?

c, USE GRAPHING CALCULATOR TO FIND  $t$  VALUES

2. SOLVE ALGEBRAICALLY:

$$y = 3 \text{ FOR } y = 2 \sin t. \text{ CHECK WITH GRAPH.}$$

3.  $y = 157$  FOR

$$y = 160 + 5 \sin(\pi t)$$

IN  $0 \leq t \leq (\text{ONE PERIOD})$

a, FIND PERIOD.

b, USE A GRAPH TO FIND  $t$  VALUES.

c, WHAT IS ALGEBRAIC RELATIONSHIP BETWEEN  $t$  VALUES?

NTS.