

Math 1613 - Trigonometry

Quiz #1 - 2009.08.27

Solutions

1. State the quadrant corresponding to each of the following conditions:

a) $\csc(t) > 0$ and $\cot(t) < 0$

Since $\csc(t) > 0$ in quadrants I and II, and $\cot(t) < 0$ in quadrants II and IV, we have that the answer must be quadrant II.

b) $\sin(t) > 0$ and $\cot(t) < 0$

This is the same as part a)

c) $\sin(t) > 0$ and $\tan(t) < 0$

This is the same as part a)

d) $\csc(t) > 0$ and $\tan(t) < 0$

This is the same as part a)

2. State the domains of the following functions.

a) $f(x) = \sin(x)$

Domain is \mathbb{R} .

b) $g(x) = \csc(x)$

Domain is all values except where $\sin(x) = 0$, hence the domain is $\mathbb{R} - \{\text{integer multiples of } 180^\circ\}$.

c) $h(x) = \cot(x)$

Same as part b).