

Problem 1 (1 mark): Given a right triangle with an adjacent of $a = 2.576 \times 10^3$ and an opposite of $o = 9.984 \times 10^2$, compute the named angle θ .

Problem 2 (1 mark): Given a right triangle with a hypotenuse of $h = 6.477$ and an opposite of $o = 4.986$, compute the named angle θ .

Problem 3 (1 mark): Given a right triangle with a hypotenuse of $h = 1.587 \times 10^{-9}$ and an adjacent of $a = 8.567 \times 10^{-10}$, compute the named angle θ .

Problem 4 (4 marks): Compute the period of the following functions:

- $f(x) = 6 \sin(5 - 2x)$
- $f(x) = \cos(-\pi x)$
- $f(x) = 2 \cos(x - 2)$
- $f(x) = -\tan(6x)$

Problem 5 (4 marks): Sketch the function