**7.2 Compound Angles**







**Example 1:** Find the exact value of $ Sin (19 π/ 12)$.

Sin (285) = sin (240 +45)

$$Sin (19 π/ 12) = Sin (4π/3 +π/4)$$

**Example 2:** Evaluate $sin (a + b)$ where $a$ and $b$ are obtuse angles;$ sin a =\frac{4}{5} $ and $\sin(b=\frac{6}{7})$.

**Example 3:** Use compound angle formulas to show that $sinx = -sin\left(2π-x\right)$

Homework: pg 401 #9, 10, 11

**7.3 – Double Angle Formulas**



**Example 1**: Simplify $2sin\frac{π}{12}cos\frac{π}{12}$

**Example 2:** If $cosθ= -\frac{3}{5} $ and $0\leq θ\leq 2π$, determine the value of $cos2θ$ and $sin2θ$.

**Example 3:** Given that $tanθ= -\frac{5}{7}, $ where $\frac{3π}{2}\leq θ\leq 2π$, determine the value of $cos2θ$ .

**Example 4:** Develop a formula for $sin\frac{x}{2}$ in terms of $x$.

Homework: pg 407 #4-10, 13