4.3 B **Work Period**

Note: Use EXACT values and NO calculator where appropriate. Show the steps required to make your thinking visible.

1. For each of the following angles draw a diagram to show the angle in standard position and state two coterminal angle.
   a) 75^0 b) -243^0 c) 405^0

2. Given the following points on the terminal arms of an angle in standard position, determine the exact value of the six trigonometric ratios for the angle.
   a) $P(-5,7)$ b) $P(-6,5)$ c) $P(-2,-3)$

3. Determine the exact expression for the six trigonometric ratios for 330^0.

4. Given $cos\theta = -\frac{\sqrt{3}}{2}$, determine the value(s) of $tan\theta$, $csc\theta$ and θ.

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5. Determine two other angles that will have the same trig ratios as $sin\theta = -\frac{1}{2}$ but have different terminal arms.

6. Evaluate the following. Use exact values and no calculator, where appropriate.

$cos210^0$	$sec225^0$	$cot{-}150^0$	$tan{-}45^0$
$csc280^0$	$sin450^0$	$cos180$	$sec240^0$

7. Determine the measure of θ for $0^0 \leq \theta \leq 360^0$ given each of the following ratios.

$cos\theta = \frac{1}{\sqrt{2}}$	$csc\theta = -2$	$tan\theta = \frac{3}{2}$	$sin\theta = -1$
$cot\theta = undefined$	$cos\theta = -\frac{1}{\sqrt{3}}$	$sec\theta = \frac{2}{\sqrt{3}}$	$tan\theta = -1.2$

8. Given $sin\theta = \frac{5}{7}$, for $90^0 \leq \theta \leq 180^0$, evaluate the exact value of $cos^2\theta sin\theta - tan^2\theta$.

9. Calculate the following.
   a) $cos45^0 sin225^0 + cos330^0$ b) $csc315^0 sin^2(-120^0) cot225^0$