MA 158

Instructions: Show all work, with clear logical steps. No work or hard-to-follow work will lose points. For Problem 3 and 4 your answer should be left in radians.

Problem 1. (1 point) Determine whether the angles 154°and 2664°are coterminal.

Solution. No: $154 + 7 \cdot 360 = 2674 \neq 2664$.   ☺

Problem 2. (1 point) Convert 7 to DMS (degrees-minutes-seconds).

Important. If there is no degree label, then the measure of the angle is assumed to be in radians!!

Solution.

$$
7 \cdot \frac{180°}{\pi} = \frac{1260}{\pi} \approx 401.07046°
$$
$$
\begin{aligned}
&= 401° + .07046 \cdot 60' \\
&= 401° + 4' + .2276 \cdot 60'' \\
&= 401° + 4' + 13.656'' \\
&= 401°4'14''.
\end{aligned}
$$
                                                                                                    ☺

Problem 3. (1 point) Find an angle that is complement to $\theta = \frac{\pi}{4}$.

Solution. $\frac{\pi}{2} - \frac{\pi}{4} = \frac{\pi}{4}$.   ☺

Problem 4. (1 point) Find an angle that is supplemental to $\theta = \frac{3\pi}{4}$.

Solution. $\pi - \frac{3\pi}{4} = \frac{\pi}{4}$.   ☺