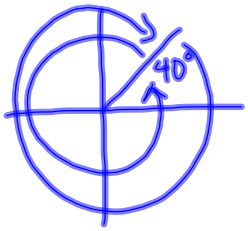
Section 4.1 continued

Coterminal Angles: radian measure & general form

ex.1) coterminal angles for $40°$; $-360° \le x \le 360°$



$40° + 360° = 400°$ outside domain

$40° - 360° = -320°$

ex.2) List all angles coterminal to $-80°$.

$-80 + 360, + 360, + 360 \ldots$

$-80 - 360, - 360, - 360 \ldots$

$x = -80° \pm 360°n, \; n \in I$

ex.3) List all angles coterminal to $\frac{2\pi}{3}$.

$x = \frac{2\pi}{3} \pm 2\pi n, \; n \in I$

ex. 4) Determine the coterminal angles for $\frac{\pi}{2}$, $-4\pi \leq x \leq 4\pi$

$\frac{\pi}{2} + 2\pi = \boxed{\frac{5\pi}{2}}$

$\frac{5\pi}{2} + 2\pi = \frac{9\pi}{2}$ too high

$\frac{\pi}{2} - 2\pi = \boxed{-\frac{3\pi}{2}}$

$-\frac{3\pi}{2} - 2\pi = \boxed{-\frac{7\pi}{2}}$

$x = \frac{5\pi}{2}, -\frac{3\pi}{2}, -\frac{7\pi}{2}$

Practice pg. 175

2, 4, 6, 7, 9, 11 a-e