## The Weekly Rigor

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"A mathematician is a machine for turning coffee into theorems."

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## 10 Problems Concerning Reference Angles (Part 1 of 2)

(Part 2)

5. 210°



For an angle of  $210^{\circ}$  in standard position, the reference angle is  $210^{\circ} - 180^{\circ} = 30^{\circ}$ .



An angle of  $-120^{\circ}$  in standard position is conterminal with an angle of  $-120^{\circ} + 360^{\circ} = 240^{\circ}$ . For an angle of  $240^{\circ}$  in standard position, the reference angle is  $240^{\circ} - 180^{\circ} = 60^{\circ}$ .



An angle of  $-315^{\circ}$  in standard position is conterminal with an angle of  $-315^{\circ} + 360^{\circ} = 45^{\circ}$ . For an angle of  $45^{\circ}$  in standard position, the reference angle is the same as the angle itself.

"Only he who never plays, never loses."

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