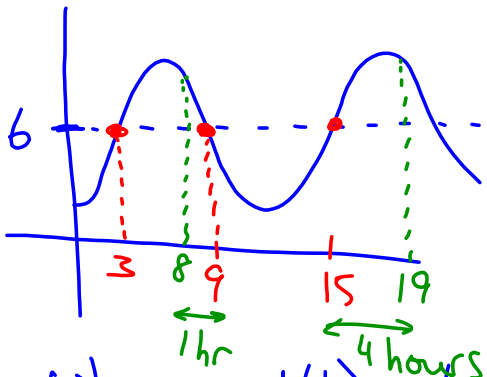
$d(t) = -3\cos(30°t) + 6$

$d \geq 6m$ 8AM – 7PM

8:00 → 19:00



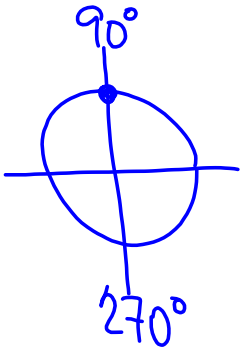
When is $d(t) = 6m$?

$-3\cos(30°t) + 6 = 6$

$-3\cos(30°t) = 0$

$\frac{-3\cos(x)}{-3} = \frac{0}{-3}$

$\cos(x) = 0$



$x = 90°$

$30°t = 90°$

$t = 3$

$x = 270°$

or $30°t = 270°$

$t = 9$

$+360°$

$x = 450°$

$30°t = 450°$

$t = 15$

$+12h$

$3 + 12 = 15$