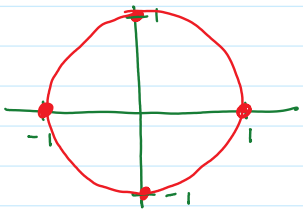
Day 3 HW

Wednesday, February 25, 2015 9:13 AM

p. 530: 6-16 even, 23, 24, ~~33-36~~

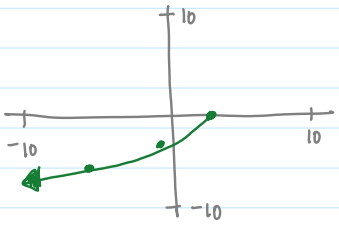
(6)

t	0	π/2	π	3π/2	2π
x	1	0	-1	0	1
y	0	1	0	-1	0



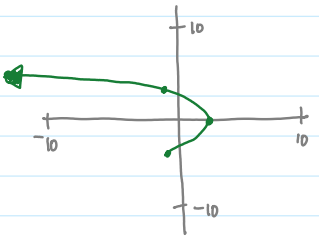
(8)

t	-10	-8	-6	-4	-2	0
x	-97	-61	-33	-13	-1	3
y	-20	-16	-12	-8	-4	0



(10)

t	-2	0	2	4
x	-1	3	-1	-13
y	-4	0	4	8



(12) $x = 2 - 3t \Rightarrow -3t = x - 2$
$y = 5 + t$ $\frac{-3t}{-3} = \frac{x-2}{-3}$

$t = -\frac{1}{3}x + \frac{2}{3}$

$y = 5 + \left(-\frac{1}{3}x + \frac{2}{3}\right)$

$y = -\frac{1}{3}x + \frac{17}{3}$ Line...

(14) $x = 5 - 3t \Rightarrow -3t = x - 5$
$y = 2 + t$ $t = \frac{x-5}{-3}$

$t = -\frac{1}{3}x + \frac{5}{3}$

$y = 2 + \left(-\frac{1}{3}x + \frac{5}{3}\right)$

$y = -\frac{1}{3}x + \frac{11}{3}$

line segment w/ endpts @ (8, 1) & (-4, 5)

t	-1	3
x	8	-4
y	1	5

(16) $x = t$
$y = t^2 - 3$

$y = x^2 - 3$
parabola w/ vertex @ (0, -3)

(23) $x = 5\cos t$
$y = 5\sin t$

$x^2 + y^2 = (5\cos t)^2 + (5\sin t)^2$
$x^2 + y^2 = 25\cos^2 t + 25\sin^2 t$
$x^2 + y^2 = 25(\cos^2 t + \sin^2 t)$
$x^2 + y^2 = 25$
circle w/ radius 5

(24) $x = 4\cos t$
$y = 4\sin t$

$x^2 + y^2 = (4\cos t)^2 + (4\sin t)^2$
$x^2 + y^2 = 16\cos^2 t + 16\sin^2 t$
$x^2 + y^2 = 16(\cos^2 t + \sin^2 t)$
$x^2 + y^2 = 16$
circle w/ radius 4