

Algebra #2 on Monday

→ Review online

4/6/2011 W

Section 12

~~Exams by~~

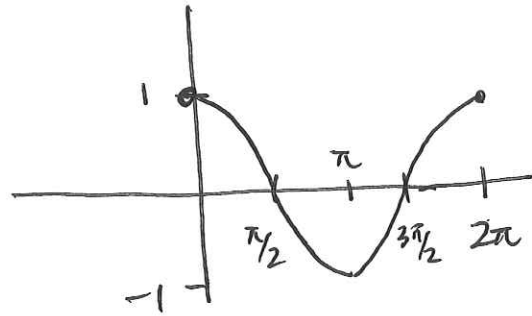
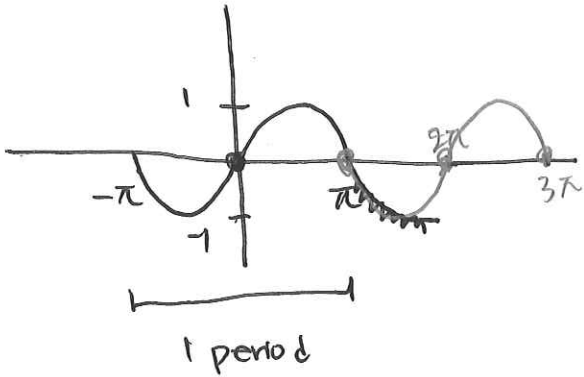
Exam #3 by Friday

§5.3 Trig Graphs

(Review transformations!)

Base: $y = \sin x$ (vertical)

$y = \cos x$ (horizontal)



period: 2π

amp: 1

avg value/midline: $y = 0$

period: 2π

amp: 1

avg val/midline: $y = 0$

Basic Transformations of $\sin(x)$ and $\cos(x)$:

Ex: Graph 2 full periods of each function using trans.

(a) $y = \sin(2t)$

↑
horiz compression/shrink by a factor of $\frac{1}{2}$.

Base: $y = \sin(2t)$

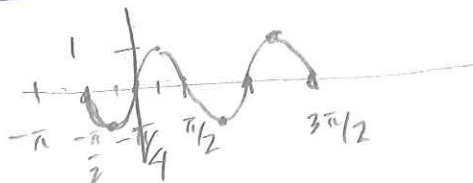
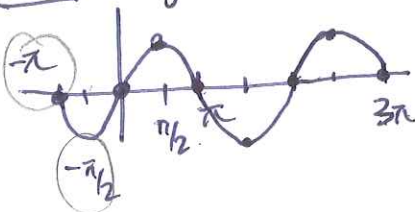
Trans:

Trans:

period: π

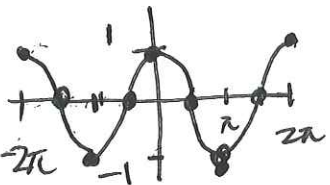
amp: 1

avg: $y = 0$.

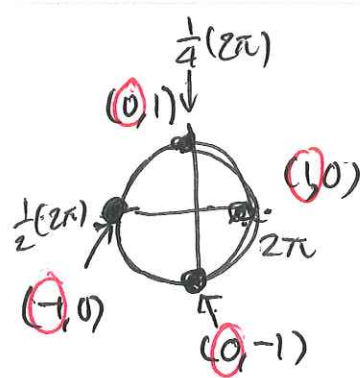
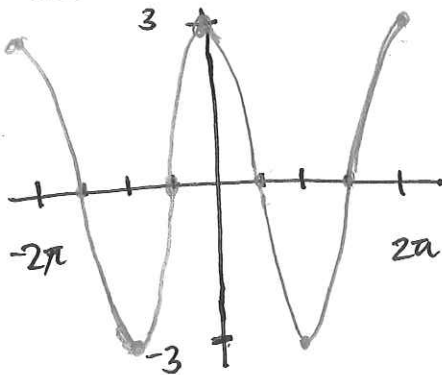


(b) $y = 3 \cos(t)$ ← vertical stretch by factor of 3.

base: $y = \cos t$



trans:



period: 2π

amp: $A = 3$

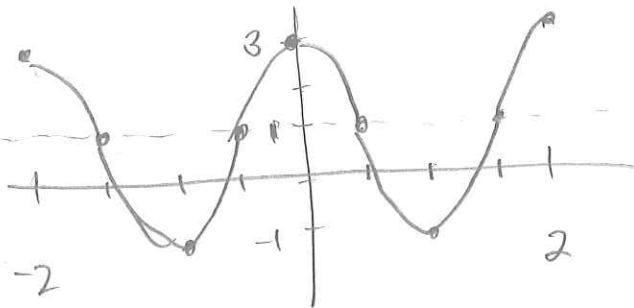
avg: $y = 0$

(c) $y = 2 \cos(\pi t) + 1$

vertical exp by 2

horizontal comp by $\frac{1}{\pi}$ max

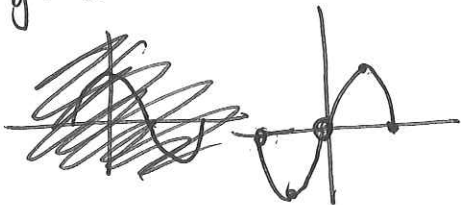
vertical shift up 1 unit.



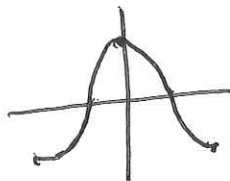
	old:	trans:
period:	2π	$\frac{2}{\pi}$
amp:	1	2π
avg:	0	1

Two more basic graphs:

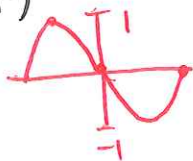
$y = \sin(t)$



$y = \cos(t)$



$y = -\sin(t)$



$y = -\cos(t)$

