

1. $y = 3 \sin\left(x - \frac{\pi}{6}\right)$

a. Transformations

b. Amplitude 3

c. Sketch a complete graph.

vert. di bawo 3

Right $\frac{\pi}{6}$

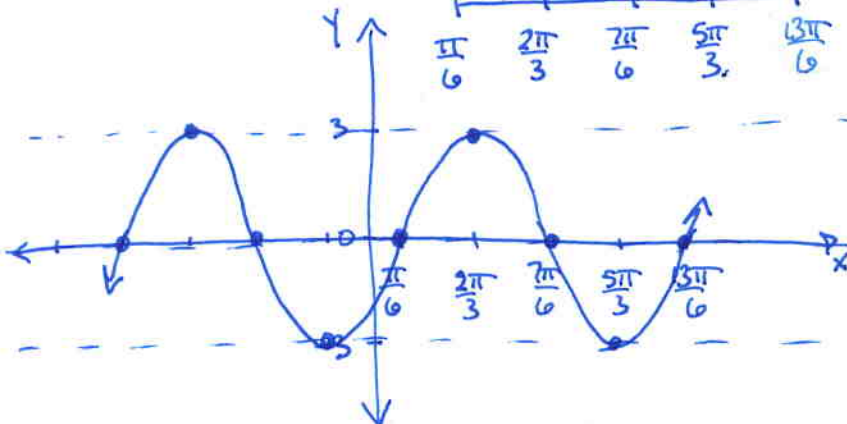
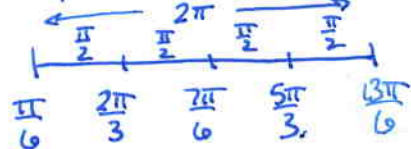
Period 2π

Phase Shift
right $\frac{\pi}{6}$

Axis $y = 0$

* 5 key values

Sine \rightarrow M T M B M



2. $y = \cos\left(\frac{1}{2}x\right) + 4$

a. Transformations

b. Amplitude 1

c. Sketch a complete graph.

Horiz. di bawo 2

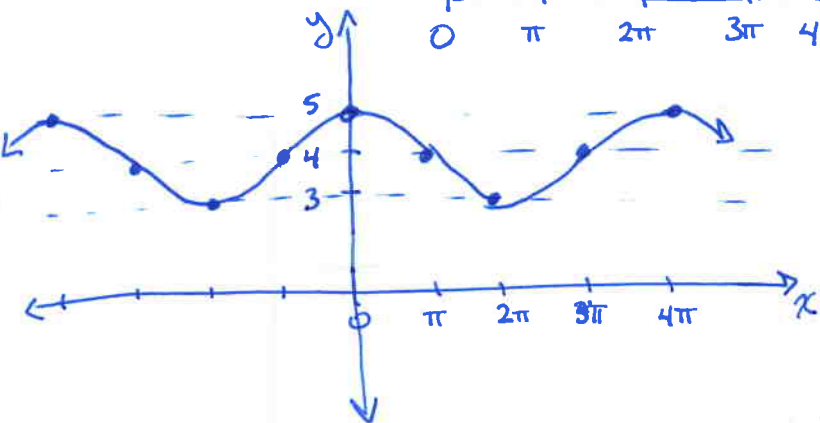
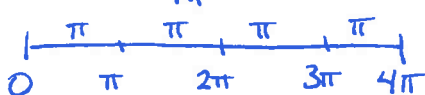
Up 4

Period
 $2(2\pi) = 4\pi$

Phase Shift
none

Axis $y = 4$

cosine \rightarrow T M B M T



3. $y = \frac{1}{2} \tan\left(\frac{1}{4}(x - 45^\circ)\right) + 1$

a. Transformations

b. Amplitude $\frac{1}{2}$

c. Sketch a complete graph.

Vert. di bawo $\frac{1}{2}$

Horiz. di bawo 4

Right 45°

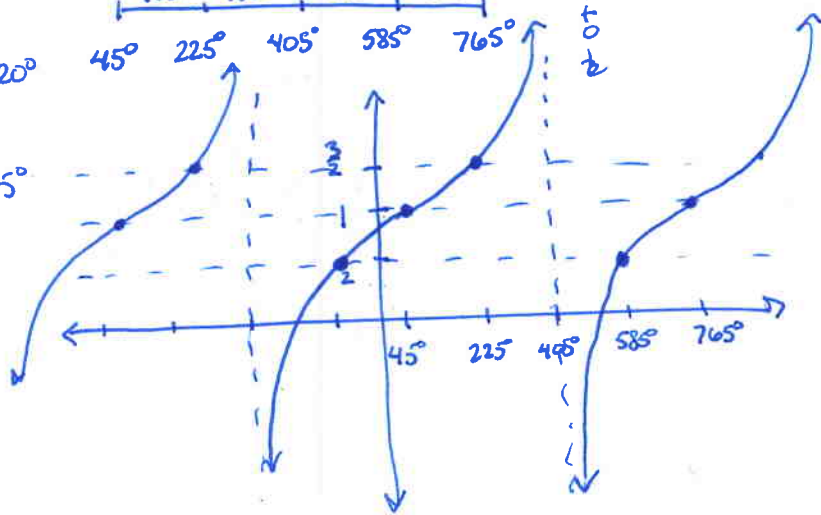
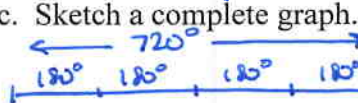
Up 1

Period
 $4(180^\circ) = 720^\circ$

Phase Shift
right 45°

Axis $y = 1$

tangent \rightarrow M T A B M



* Two full periods

* Label x-axis for one full period

* 5 key values

sine \rightarrow M T M B M

cosine \rightarrow T M B M T

tangent \rightarrow M T A B M

s
y
m
p
+
o
±

* Label 3 key values on y-axis

HW Sine, cosine, and Tangent Graphs

Graph \rightarrow 5, 9, 10

Write Equations \rightarrow 13, 14, 15
sine & cosine