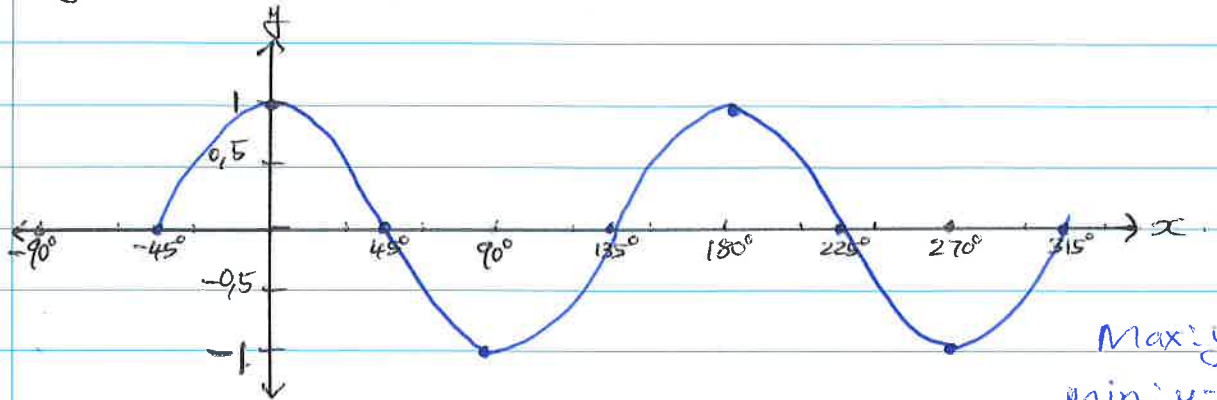


Exercise 2

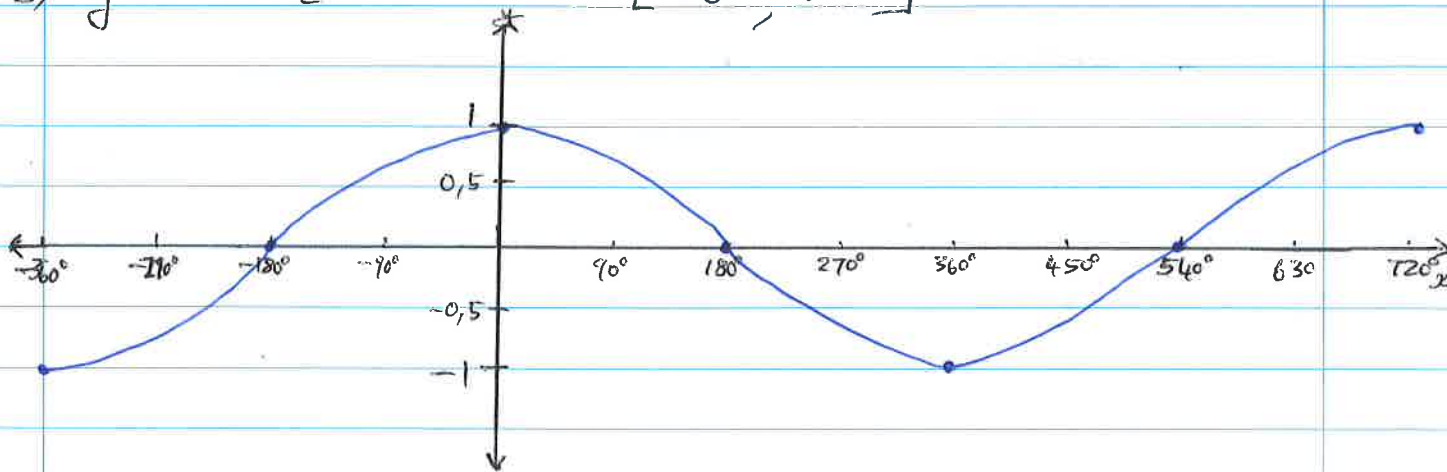
a) $y = \cos 2x$ $x \in [-45^\circ; 315^\circ]$

$\frac{360^\circ}{2} = 180^\circ$
New CVs: 45°



Max: $y = 1$
min: $y = -1$
ampl. 1
period: 180°

b) $y = \cos \frac{1}{2}x$ $x \in [-360^\circ; 720^\circ]$

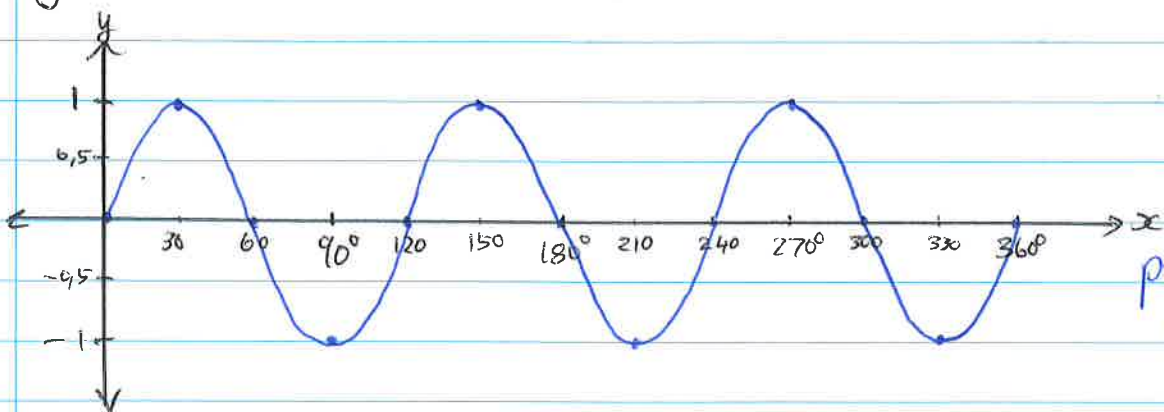


$\frac{360^\circ}{0,5} = 720^\circ$ new CVs: 180°

Max: $y = 1$ Min: $y = -1$
ampl. 1 period: 720°

c) $y = \sin 3x$ $x \in [0^\circ; 360^\circ]$

$\frac{360^\circ}{3} = 120^\circ$ New CVs: 30°



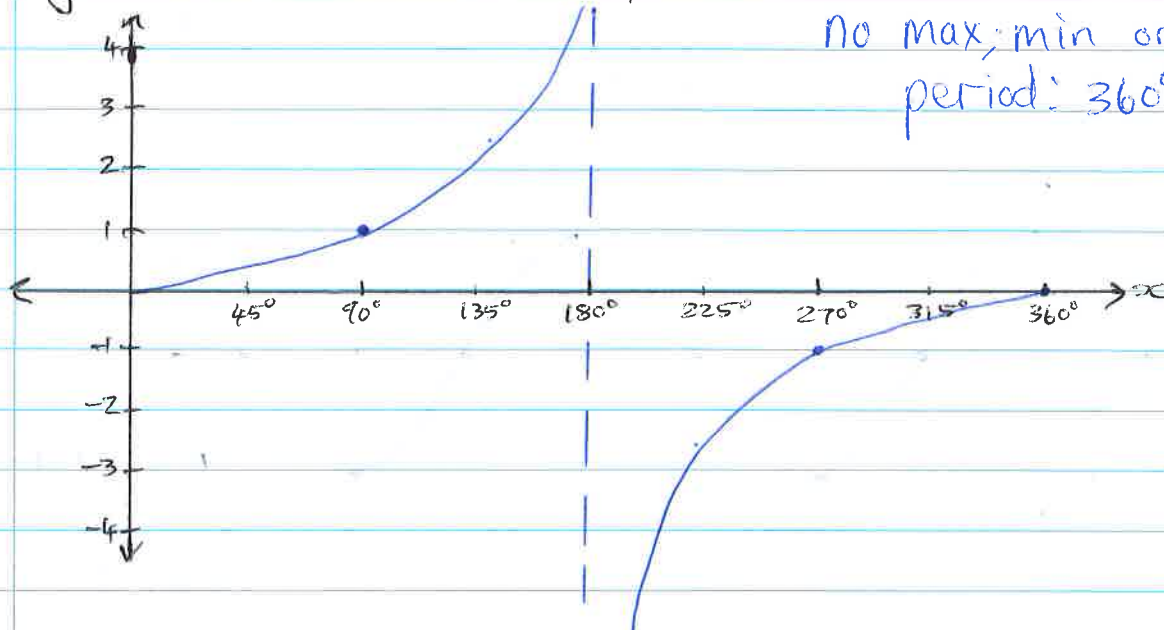
Max: $y = 1$
Min: $y = -1$
ampl. 1
period: 120°

d) $y = \tan \frac{1}{2}x$

$x \in [0^\circ; 360^\circ]$

$\frac{180^\circ}{0,5} = 360^\circ$

No max; min or ampl.
period: 360°

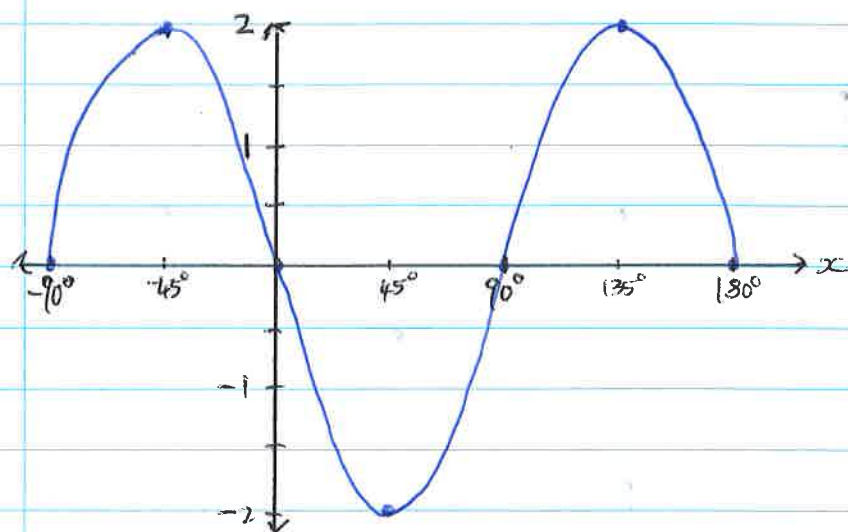


e) $y = -2 \sin 2x$

$x \in [-90^\circ; 180^\circ]$

$\frac{360^\circ}{2} = 180^\circ$

New CVs
 45°

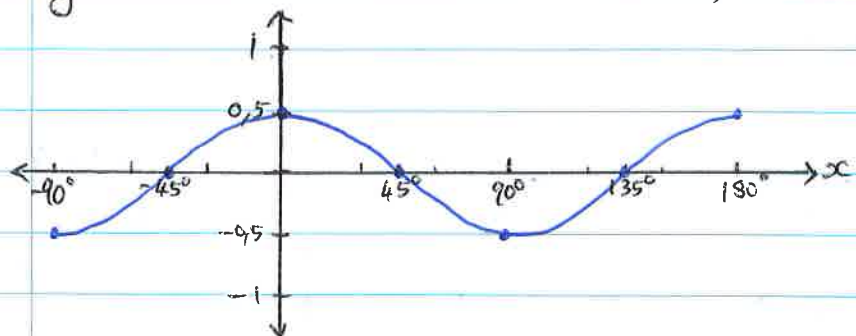


Max: $y = 2$
min: $y = -2$
ampl. 2
period: 180°

f) $y = \frac{1}{2} \cos 2x$

$x \in [-90^\circ; 180^\circ]$

$\frac{360^\circ}{2} = 180^\circ$ New CVs 45°

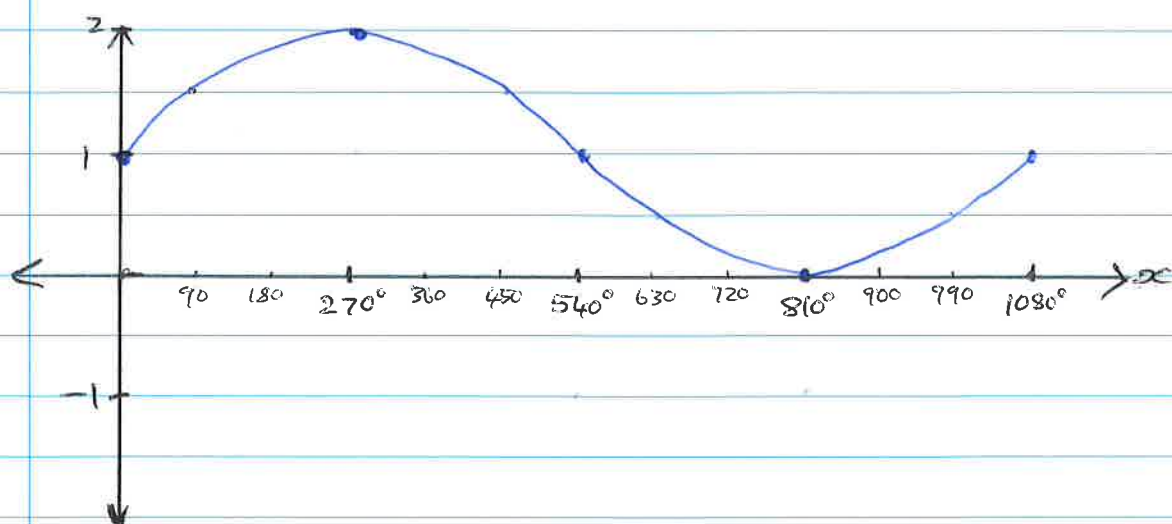


max: $y = \frac{1}{2}$
min: $y = -\frac{1}{2}$
ampl. $\frac{1}{2}$
period: 180°

g) $\sin \frac{1}{3}x + 1$

$x \in [0^\circ; 1080^\circ]$

$\frac{360^\circ}{\frac{1}{3}} = 1080^\circ$ New CVs = 270°



Max: $y = 2$

Min: $y = 0$

ampl. 1

period: 1080°