Revision Sheet 1 – Sinusoidal Functions

1. Use a calculator and a unit circle diagram to find the first two solutions to
   (a) $\sin t = 0.3$

   (b) $\cos t = -0.8$

2. Draw two cycles of the graph of
   $h = 4 \sin 3 (t - 30) + 2$
   (Show the parameters and characteristics as working.)

3. A Ferris wheel car goes round in 90 seconds. It is 2 m above the ground at the bottom and 12 m above the ground at the top. It stars at $t = 0$ at the bottom. Write the relation between height and time as a formula. Show working.

4. Find the first two solutions of
   $2 \sin 6 (t + 8) - 1 = 0$

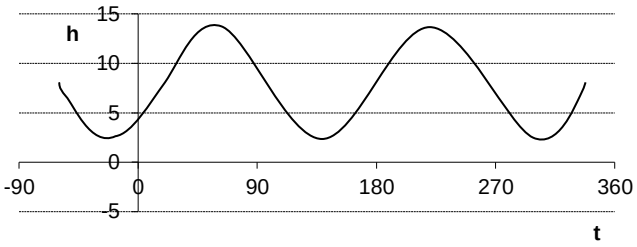
Revision Sheet 2 – Sinusoidal Functions

1. Use a calculator and a unit circle diagram to find the first two solutions to
   (a) $\sin t = 0.75$

   (b) $\cos t = -0.21$

2. Draw two cycles of the graph of
   $h = 4 \sin (t + 90) + 4$
   (Show the parameters and characteristics as working.)

3. Express the following function as a formula. Show working including the characteristics and parameters.



4. Find the first two solutions of
   $2 \sin 5 (t - 5) + 6 = 7$

Revision Sheet 3 – Sinusoidal Functions

1. Use a calculator and a unit circle diagram to find the first two solutions to
   (a) $\sin t = -0.5$

   (b) $\cos t = 0.27$

2. Draw two cycles of the graph of
   $h = 2 \sin 4 (t + 10) + 3$
   (Show the parameters and characteristics as working.)

3. A Ferris wheel car goes round in 120 seconds. It is 1 m below the ground at the bottom and 15 m above the ground at the top. It stars at $t = 0$ at the bottom. Write the relation between height and time as a formula. Show working.

4. Find the first two solutions of
   $5 \sin 2 (t - 20) + 3 = -1$