

Name

Revision Sheet 1 – Sinusoidal Functions

- Use a calculator and a unit circle diagram to find the first two solutions to
 - $\sin t = 0.3$
 - $\cos t = -0.8$
- Draw two cycles of the graph of $h = 4 \sin 3(t - 30) + 2$
(Show the parameters and characteristics as working.)
- 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 starts at $t = 0$ at the bottom. Write the relation between height and time as a formula. Show working.
- Find the first two solutions of $2 \sin 6(t + 8) - 1 = 0$

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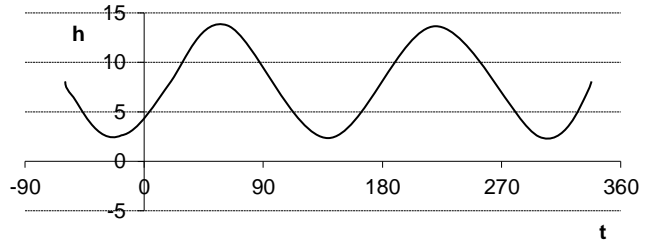
Revision Sheet 2 – Sinusoidal Functions

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
 $2 \sin 5(t - 5) + 6 = 7$

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Revision Sheet 3 – Sinusoidal Functions

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

<p>(b) $\cos t = 0.27$</p> | <p>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 starts at $t = 0$ at the bottom. Write the relation between height and time as a formula. Show working.</p> |
| <p>2. Draw two cycles of the graph of $h = 2 \sin 4(t + 10) + 3$ (Show the parameters and characteristics as working.)</p> | <p>4. Find the first two solutions of $5 \sin 2(t - 20) + 3 = -1$</p> |