The method: Amplitude and period

For y = A sin Bx or y = A cos Bx: the amplitude is |A| and the period is 2π ÷ B.

$y = -4 \sin x \quad \rightarrow \quad$ amplitude 4, period 2π

amplitude $= |-4| = 4$

period $= \frac{2\pi}{1} = 2\pi$ 2π ÷ the number in front of x

$y = -4 \cos \frac{x}{2} \quad \rightarrow \quad$ amplitude 4, period 4π

amplitude $= |-4| = 4$

period $= \frac{2\pi}{1/2} = 4\pi$ 2π ÷ the number in front of x

Problems 1 and 2 worked out · Version 0A

$y = -\cos 3x \quad \rightarrow \quad$ amplitude 1, period $\frac{2\pi}{3}$

amplitude $= |-1| = 1$

period $= \frac{2\pi}{3} = \frac{2\pi}{3}$ 2π ÷ the number in front of x

$y = 5 \sin 2x \quad \rightarrow \quad$ amplitude 5, period π

amplitude $= |5| = 5$

period $= \frac{2\pi}{2} = \pi$ 2π ÷ the number in front of x

Amplitude and period · Version 0A

1) amplitude 1, period $\frac{2\pi}{3}$ 2) amplitude 5, period π

3) amplitude 4, period $\frac{\pi}{2}$ 4) amplitude 2, period $\frac{\pi}{2}$

5) amplitude 1, period $\frac{2\pi}{3}$ 6) amplitude 3, period π

7) amplitude 2, period $\frac{2\pi}{3}$ 8) amplitude 1, period $\frac{\pi}{2}$

9) amplitude 2, period $\frac{\pi}{2}$ 10) amplitude 1, period π

11) amplitude 4, period $\frac{\pi}{2}$

12) amplitude 1, period $\frac{2\pi}{3}$

13) amplitude 1, period π

14) amplitude 3, period 2π

15) amplitude 3, period 6π