14 CHAPTER REVIEW

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- Multi-Language Glossary
- Vocabulary practice

REVIEW KEY VOCABULARY

- amplitude, *p. 908*
- periodic function, *p. 908*
- cycle, *p. 908*
- period, *p. 908*
- frequency, *p. 910*
- trigonometric identity, *p. 924*
- sinusoid, *p. 941*

VOCABULARY EXERCISES

1. Copy and complete: Frequency gives the number of ___?___ per unit of time.

2. **WRITING** *Explain* how to find the period of $y = a \sin b(x - h) + k$.

Determine whether the given number is the *amplitude*, *period*, or *frequency* of the graph of $y = \pi \cos \frac{\pi x}{2}$.

3. 4
4. π
5. 0.25

REVIEW EXAMPLES AND EXERCISES

Use the review examples and exercises below to check your understanding of the concepts you have learned in each lesson of Chapter 14.

14.1 Graph Sine, Cosine, and Tangent Functions *pp. 908–914*

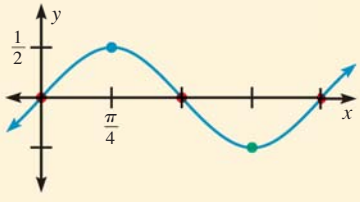
EXAMPLE

Graph (a) $y = \frac{1}{2} \cos 2x$ and (b) $y = 3 \tan \frac{x}{2}$.

a. Amplitude: $a = \frac{1}{2}$ **Period:** $\frac{2\pi}{2} = \pi$

Intercepts: $(0, 0)$; $\left(\frac{\pi}{2}, 0\right)$; $(\pi, 0)$

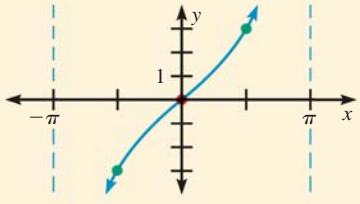
Maximum: $\left(\frac{\pi}{4}, \frac{1}{2}\right)$ **Minimum:** $\left(\frac{3\pi}{4}, -\frac{1}{2}\right)$



b. Period: $\frac{\pi}{\frac{1}{2}} = 2\pi$ **Intercept:** $(0, 0)$

Asymptotes: $x = -\pi$; $x = \pi$

Halfway points: $\left(-\frac{\pi}{2}, -3\right)$; $\left(\frac{\pi}{2}, 3\right)$



EXAMPLES 1, 2, and 4 on pp. 909–912 for Exs. 6–9

EXERCISES

Graph the function.

6. $y = \sin 2x$
7. $f(x) = \frac{1}{2} \cos \frac{x}{2}$
8. $g(x) = 5 \sin \pi x$
9. $y = 2 \tan \frac{1}{3}x$