

SM3 8.2 answers

1. $a = 6, b = 4, c = \frac{\pi}{2}, d = -3$

2. $a = -3, b = \pi, c = 0, d = 10$

3. Phase shift: left $\frac{\pi}{2}, b = 1$

Period: 2π , Frequency: $\frac{1}{2\pi}$

4. Phase shift: none, $b = 2$

Period: π , Frequency: $\frac{1}{\pi}$

5. Phase shift: none, $b = \frac{1}{3}$

Period: 6π , Frequency: $\frac{1}{6\pi}$

6. Phase shift: right $\pi, b = 2$

Period: π , Frequency: $\frac{1}{\pi}$

7. Phase shift: none, $b = 6$

Period: $\frac{\pi}{3}$, Frequency: $\frac{3}{\pi}$

8. Phase shift: none, $b = \frac{1}{4}$

Period: 8π , Frequency: $\frac{1}{8\pi}$

9. Phase shift: right $4\pi, b = 2$

Period: π , Frequency: $\frac{1}{\pi}$

10. Phase shift: none, $b = 1$

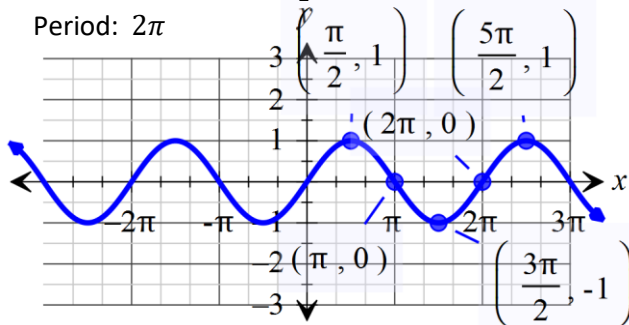
Period: 2π , Frequency: $\frac{1}{2\pi}$

11. Phase shift: none, $b = 1$

Period: 2π , Frequency: $\frac{1}{2\pi}$

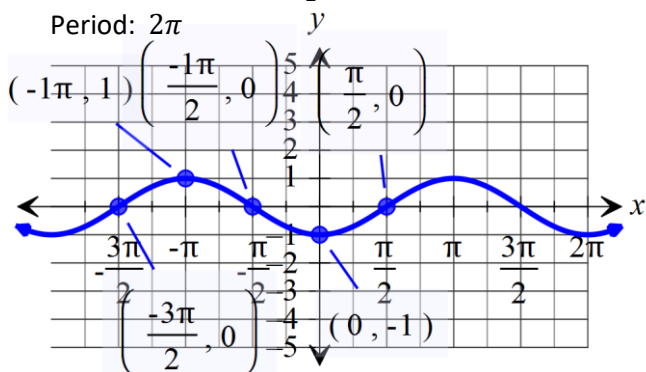
12. Phase shift: right $\frac{\pi}{2}$

Period: 2π



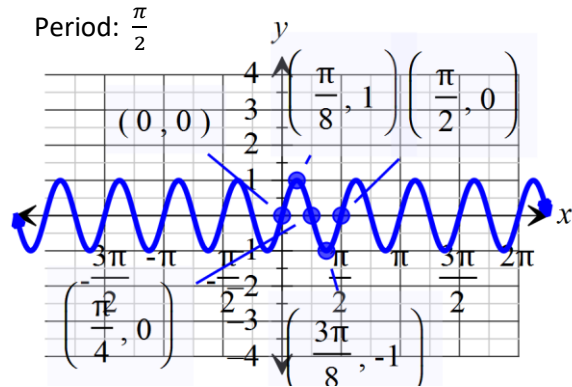
13. Phase shift: left $\frac{3\pi}{2}$

Period: 2π



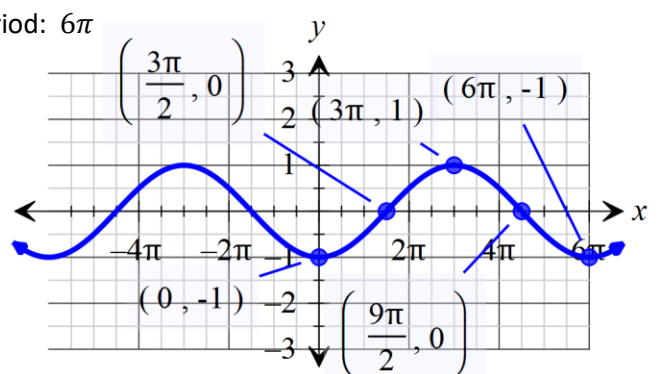
14. Phase shift: none

Period: $\frac{\pi}{2}$



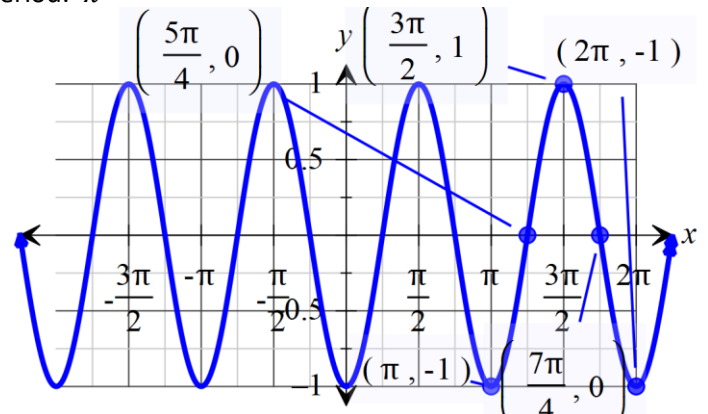
15. Phase shift: none

Period: 6π



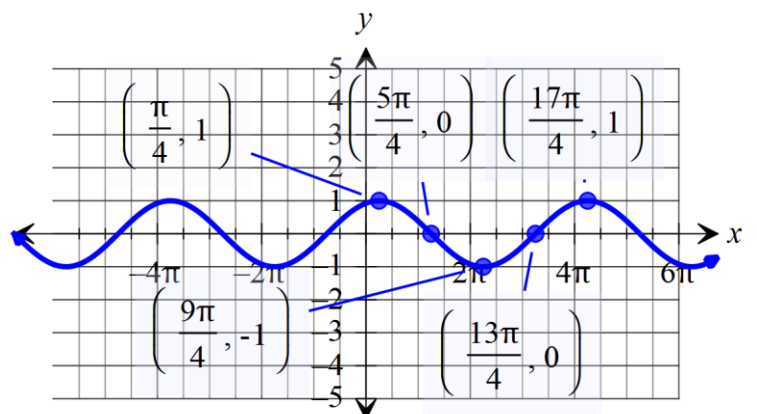
16. Phase shift: right π

Period: π



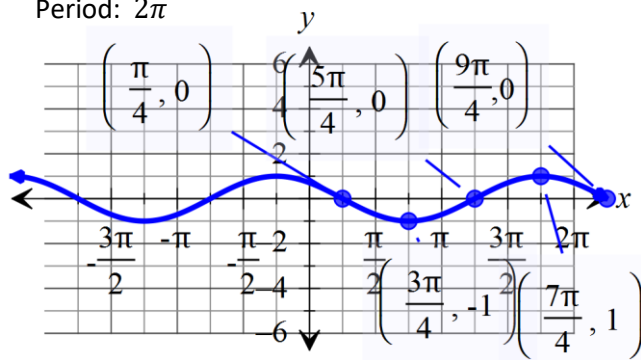
17. Phase shift: right $\frac{\pi}{2}$

Period: 2π



18. Phase shift: right $\frac{\pi}{2}$

Period: 2π



19. $f(x) = \sin(2(x - 3))$

20. $f(x) = \sin\left(4\left(x - \frac{\pi}{2}\right)\right)$

21. $f(x) = \sin x$

22. $f(x) = \sin(6(x - \pi))$