

SM3 8.3 answers

1. Vertical shift: up 1

Amplitude: 6

Phase shift: right π

b: 4 Period: $\frac{\pi}{2}$

2. Vertical shift: up 2

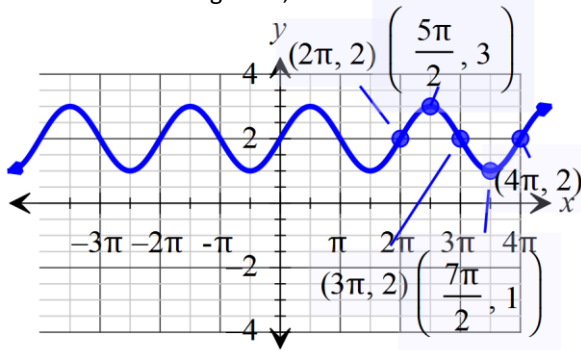
Amplitude: 1

Phase shift: left $\frac{\pi}{5}$

b: 1 Period: 2π

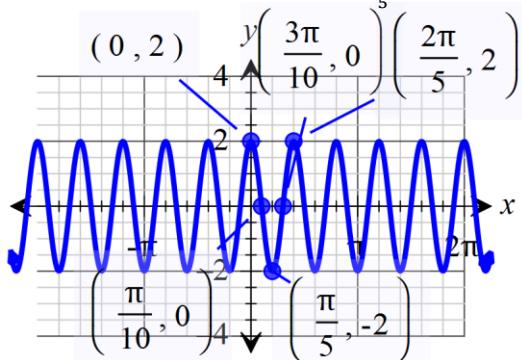
3. Vertical shift: up 2, Amplitude: 1

Phase shift: right 2π , Period: 2π



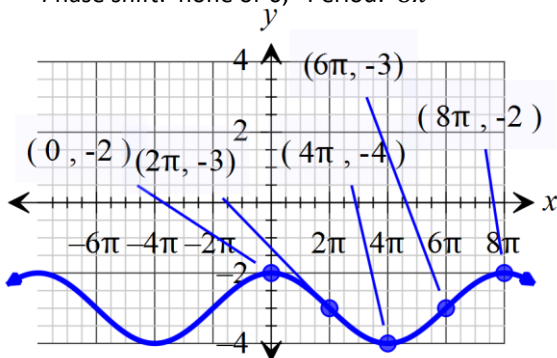
4. Vertical shift: none or 0, Amplitude: 2

Phase shift: none or 0, Period: $\frac{2\pi}{5}$



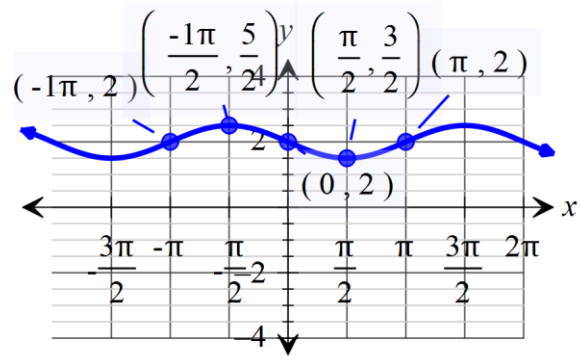
5. Vertical shift: down 3, Amplitude: 1

Phase shift: none or 0, Period: 8π



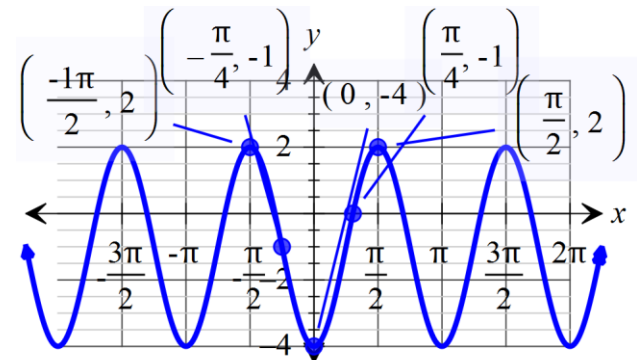
6. Vertical shift: up 2, Amplitude: $\frac{1}{2}$

Phase shift: left π , Period: 2π



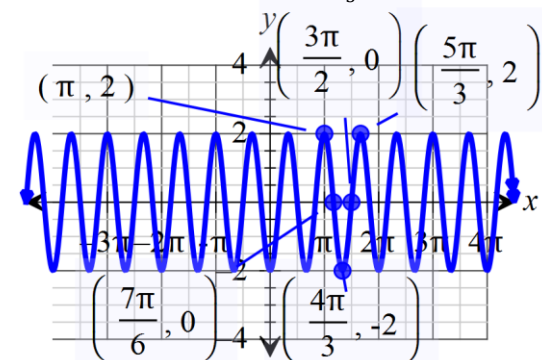
7. Vertical shift: down 1, Amplitude: 3

Phase shift: left $\frac{\pi}{2}$, Period: π



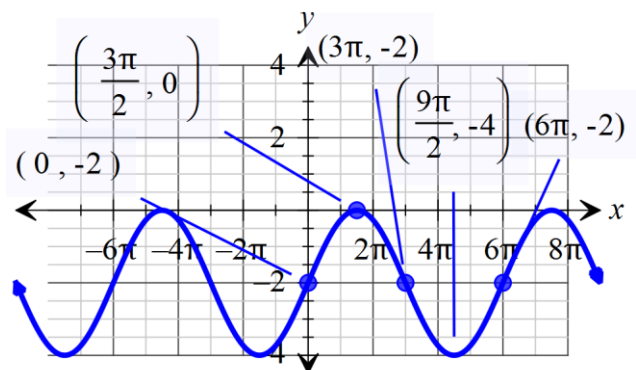
8. Vertical shift: none or 0, Amplitude: 2

Phase shift: right π , Period: $\frac{2\pi}{3}$



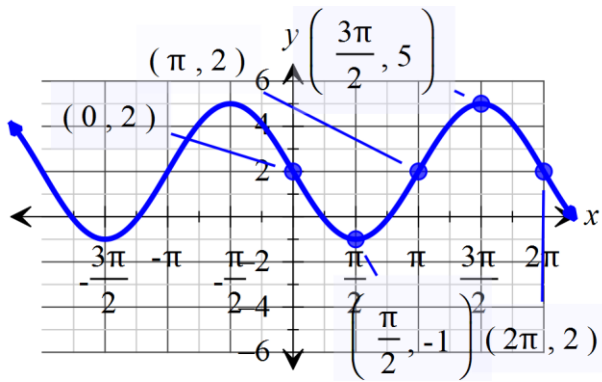
9. Vertical shift: down 2, Amplitude: 2

Phase shift: none or 0, Period: 6π



10. Vertical shift: up 2, Amplitude: 3, reflect over x-axis

Phase shift: none or 0, Period: 2π



11. Vertical shift: none or 0, Amplitude: 2, reflect over x-axis

Phase shift: right $\frac{\pi}{6}$, Period: 2π

