Additional Problems: Periodic Functions

**The Sine & Cosine Function Graphs**

**Some problems include the solution. Please remove before sharing with students.**

1. Use the table to answer the question.

|  |  |
| --- | --- |
| $$θ$$ | $$f(θ)$$ |
| 0 |  |
| $$\frac{π}{3}$$ |  |
| $$\frac{2π}{3}$$ |  |
| $$π$$ |  |
| $$\frac{4π}{3}$$ |  |

Use the table of values to graph $f\left(θ\right)=3$sin$(\frac{θ}{2})$ and find the amplitude, midline, and period.

\*\*Solution: amplitude = 3, midline: $y=0$, period = $4π$

1. Use the table to answer the question.

|  |  |
| --- | --- |
| $$θ$$ | $$f(θ)$$ |
| 0 |  |
| $$\frac{π}{2}$$ |  |
| $$π$$ |  |
| $$\frac{3π}{2}$$ |  |
| $$2π$$ |  |

Use the table of values to graph $f\left(θ\right)=2$sin$(θ)$ and find the amplitude, midline, and period.

\*\*Solution: amplitude = 2, midline: $y=0$, period = $2π$

1. Use the table to answer the question.

|  |  |
| --- | --- |
| $$θ$$ | $$f(θ)$$ |
| 0 |  |
| $$\frac{π}{6}$$ |  |
| $$\frac{π}{3}$$ |  |
| $$\frac{π}{2}$$ |  |
| $$\frac{2π}{3}$$ |  |

Use the table of values to graph $f\left(θ\right)=5$sin$(3θ)$ and find the amplitude, midline, and period.

\*\*Solution: amplitude = 5, midline: $y=0$, period = $\frac{2π}{3}$