Pre-Calculus Honors Graphing Trigonometric Functions Sections 4.4-4.5

**State the amplitude, period, phase shift and vertical shift for each of the following**.

1.

|  |  |  |  |
| --- | --- | --- | --- |
| Amplitude: | Period: | Phase Shift: | Vertical Shift: |
| Key Points: | | Graph: | |

2.

|  |  |  |  |
| --- | --- | --- | --- |
| Amplitude: | Period: | Phase Shift: | Vertical Shift: |
| Key Points: | | Graph: | |

3.

|  |  |  |  |
| --- | --- | --- | --- |
| Amplitude: | Period: | Phase Shift: | Vertical Shift: |
| Key Points: | | Graph: | |

**Write a sine function for each of the following.**

|  |
| --- |
| 4. Amplitude = 2 Period = 3 Phase Shift = 0 Vertical Shift = 2 |
|  |
| 5. Amplitude = Period = Phase Shift = Vertical Shift = x-axis reflection |
|  |
| 6. Amplitude = 4 Period = 4 Phase Shift = Vertical Shift = 1 x-axis reflection |
|  |
| 7. Amplitude = Period = Phase Shift = Vertical Shift = 3 |
|  |

**Write a cosine function for each of the following.**

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| 8. Amplitude = Period = Phase Shift = Vertical Shift = 2 |
|  |
| 9. Amplitude = Period = Phase Shift = 0 Vertical Shift = 0 |
|  |
| 10. Amplitude = 5 Period = 3 Phase Shift = Vertical Shift = x-axis reflection |
|  |
| 11. Amplitude = 1 Period = Phase Shift = 1 Vertical Shift = |
|  |

**State the amplitude, period, phase shift, asymptotes and vertical shift for each of the following**.

12.

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| --- | --- | --- | --- | --- | --- |
| Amplitude: | Period: | Phase Shift: | | Vertical Shift: | Asymptotes: |
| Key Points: | | | Graph: | | |

13.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Amplitude: | Period: | Phase Shift: | | Vertical Shift: | Asymptotes: |
| Key Points: | | | Graph: | | |

14.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Amplitude: | Period: | Phase Shift: | | Vertical Shift: | Asymptotes: |
| Key Points: | | | Graph: | | |

15.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Amplitude: | Period: | Phase Shift: | | Vertical Shift: | Asymptotes: |
| Key Points: | | | Graph: | | |

16.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Amplitude: | Period: | Phase Shift: | | Vertical Shift: | Asymptotes: |
| Key Points: | | | Graph: | | |

17.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Amplitude: | Period: | Phase Shift: | | Vertical Shift: | Asymptotes: |
| Key Points: | | | Graph: | | |

18.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Amplitude: | Period: | Phase Shift: | | Vertical Shift: | Asymptotes: |
| Key Points: | | | Graph: | | |

**Write the equation of the trigonometric function for the given graph.**

|  |  |
| --- | --- |
| 19. | 20. |
| 21. | 22. |