CC Algebra 2/Trig Honors Problem Set: 11-1 and 11-2

Graph one period. Graphs must be neat and drawn to scale. Axes must be labeled. Asymptotes on tangent graphs must be shown. Identify the range of each graph.

1. $y = \sin\frac{1}{4}x$ 2. $y = 4\sin 2x$ 3. $y = \frac{1}{2}\cos \pi x$ 4. $y = 3\cos\frac{1}{2}x$

5. $y = 4\tan 2x$ 6. $y = \tan\frac{1}{3}x$ 7. $y = \sin\frac{1}{2}x - 1$ 8. $y = \cos 2x + 3$

9. $y = -2\sin\frac{1}{3}x$ 10. $y = -3\tan\frac{1}{2}x$ 11. $y = \sin(x+\pi) + 2$ 12. $y = 3\cos\left(x - \frac{\pi}{2}\right) - 2$

13. $y = \frac{1}{2}\tan(x-\pi) - 3$ 14. $y = -4\cos\frac{1}{4}\left(x + \frac{\pi}{2}\right) + 1$

Write an equation of the graph described.

15. a sine graph with amplitude 6 and period 4

16. a cosine graph with amplitude $\frac{1}{2}$ and period $\frac{\pi}{3}$

17. the graph of $y = \sin 2\pi x$ is translated right 4 units and down 2 units

18. the graph of $y = 5\tan x$ is translated left $\frac{\pi}{4}$ unit and reflected in the *x*-axis

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