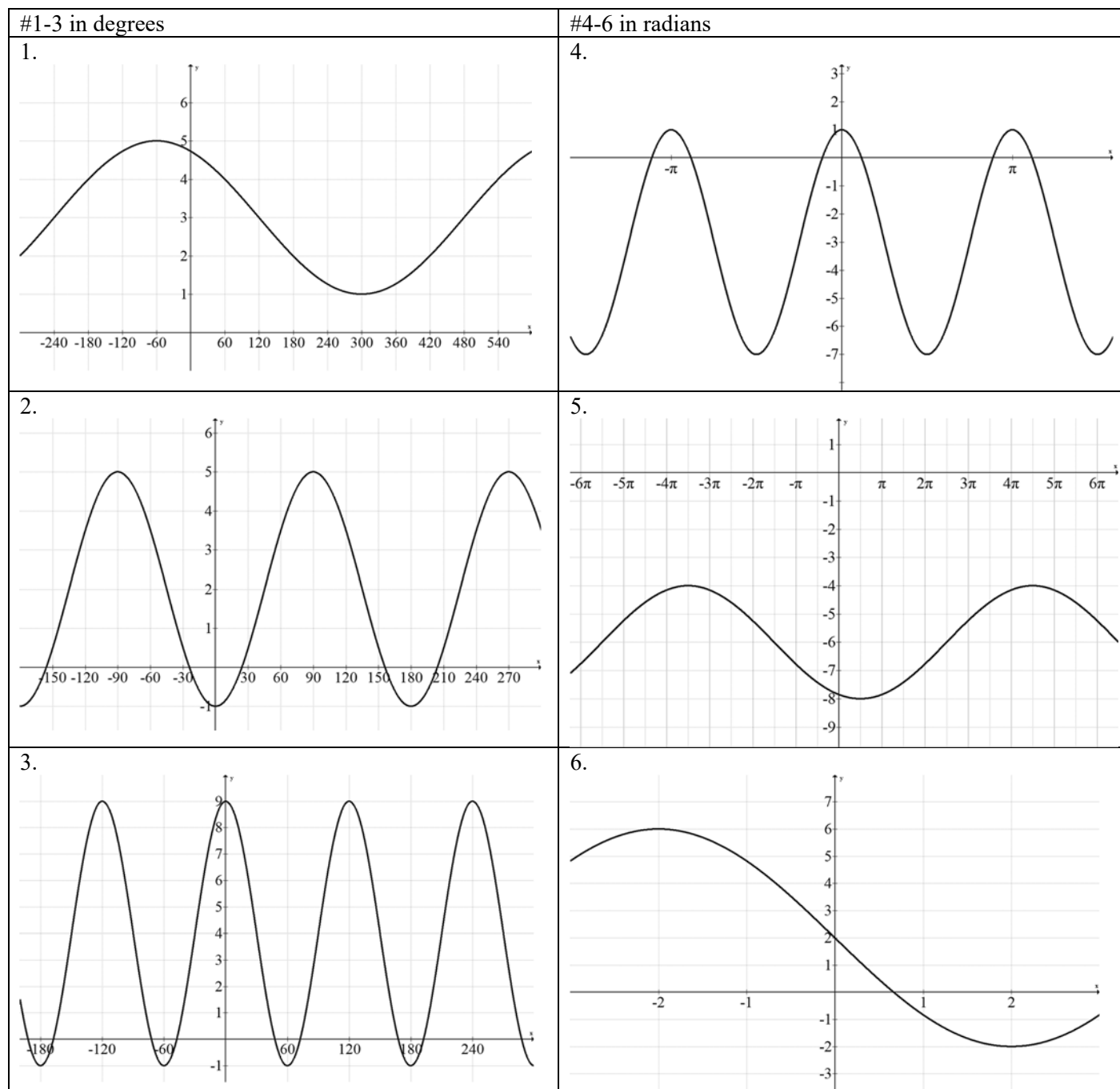


Trig Graphs Review

Determine the equation for the following graphs.



Graph the following.

7. $y = 3 + 5 \cos \frac{2}{3}(\theta - 150^\circ)$ in degrees

9. $y = 3 + 7 \sin 2\left(x + \frac{\pi}{4}\right)$ in radians

11. $y = -12 + 20 \cos 30(\theta + 4^\circ)$ in degrees

8. $y = -5 + 6 \cos \frac{\pi}{5}(x - 2)$ in radians

10. $y = 5 - 2 \cos \frac{1}{4}(\theta - \pi)$ in radians

12. $y = 5 + 2 \tan 2\left(x - \frac{\pi}{3}\right)$ in radians

13. $y = -4 + 8 \csc 3(\theta + 50)$ in degrees

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

15. $y = 3 - 2 \sec 2\left(x - \frac{\pi}{2}\right)$ in radians

16. $y = -1 + 4 \tan\left(x - \frac{\pi}{3}\right)$ in radians

17. $y = 4 - 2 \csc 2\left(x - \frac{\pi}{6}\right)$ in radians

18. $y = 3 - \frac{1}{2} \cot(2\pi x)$ in radians

19. If you were to continue graphing numerous cycles for #8, how many times would $y = 0$ on the interval $(0, 50)$?

20. If you were to continue graphing numerous cycles for #11, how many times would $y = -28$ on the interval $(0, 32)$?

Answers:

Possible solutions

1. $y = 3 + 2 \cos \frac{1}{2}(x + 60^\circ)$

$y = 3 + 2 \sin \frac{1}{2}(x + 240^\circ)$

2. $y = 2 + 3 \cos 2(x - 90^\circ)$

$y = 2 + 3 \sin 2(x - 45^\circ)$

3. $y = 4 + 5 \cos 3x$

$y = 4 + 5 \sin 3(x + 30^\circ)$

4. $y = -3 + 4 \cos 2(x)$

$y = -3 + 4 \sin 2\left(x + \frac{\pi}{4}\right)$

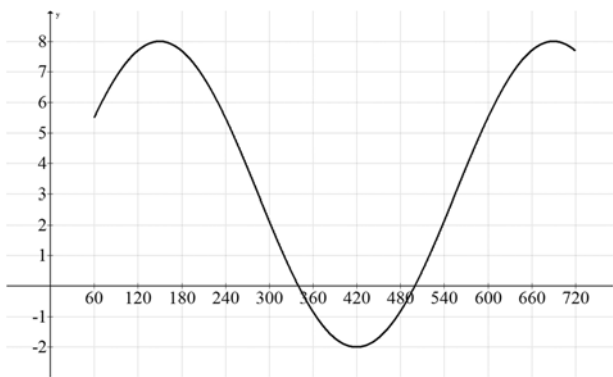
5. $y = -6 - 2 \cos \frac{1}{4}\left(x - \frac{\pi}{2}\right)$

$y = -6 + 2 \sin \frac{1}{4}\left(x - \frac{5\pi}{2}\right)$

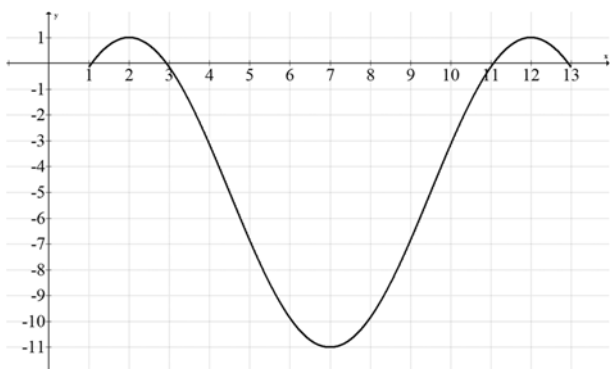
6. $y = 2 + 4 \cos \frac{\pi}{4}(x + 2)$

$y = 2 - 4 \sin \frac{\pi}{4}(x)$

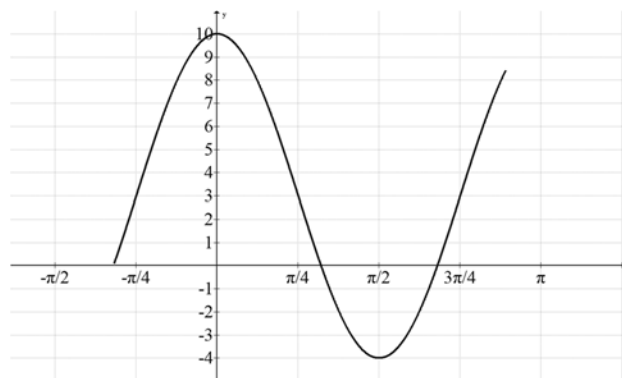
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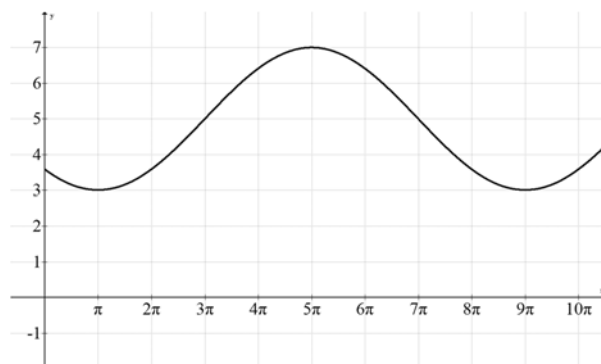
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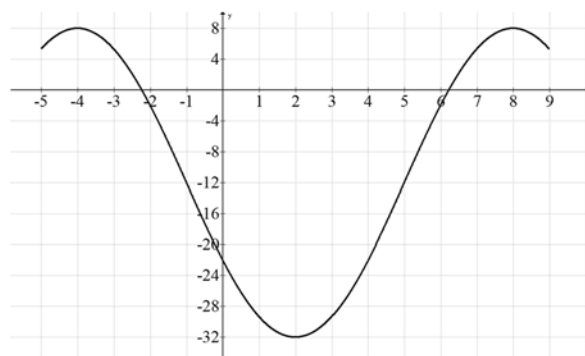
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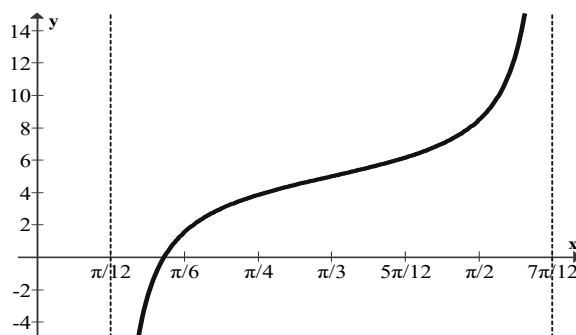
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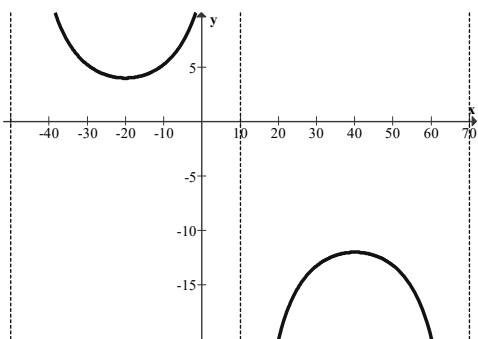
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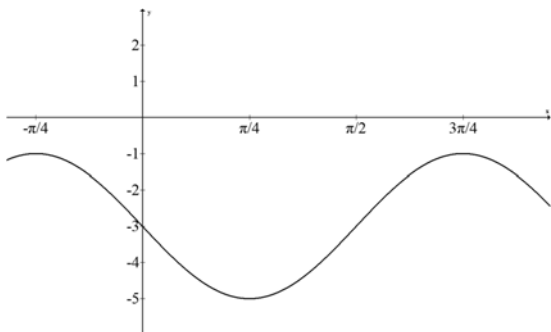
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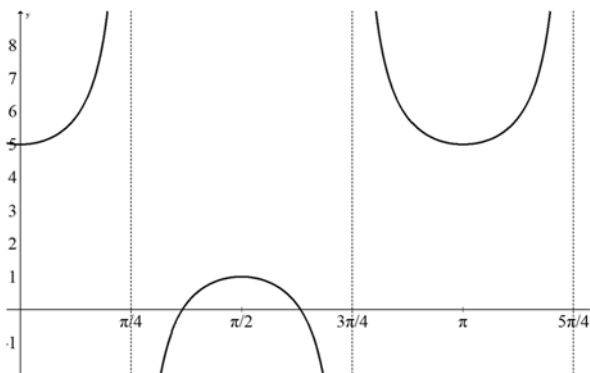
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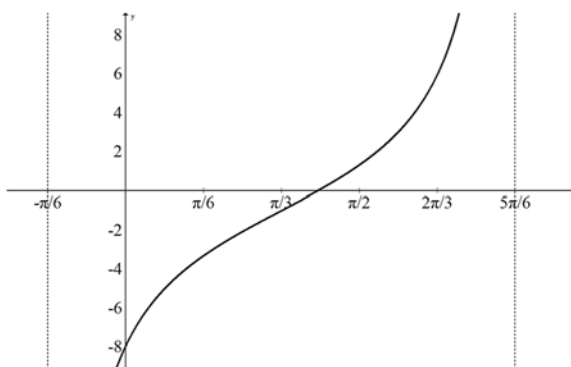
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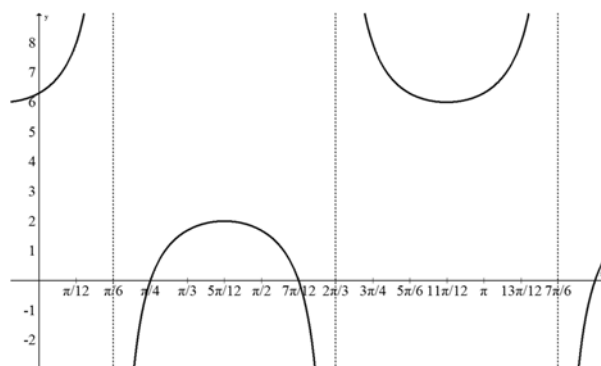
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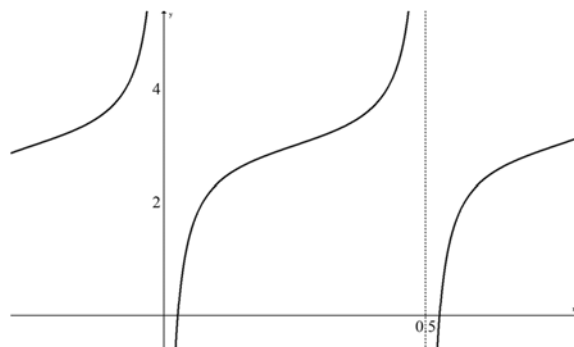
16.



17.



18.



19. 10 times

20. 6 times