

Graph one cycle of the following graphs:

1.  $y = 7 + 4 \cos(3(\theta - 10^\circ))$

3.  $y = -10 + 20 \sin(\theta + 30^\circ)$

5.  $y = 3 + 5 \cos\left(\frac{1}{2}(\theta + 90^\circ)\right)$

7.  $y = 11 - 6 \sin(\theta - 17^\circ)$

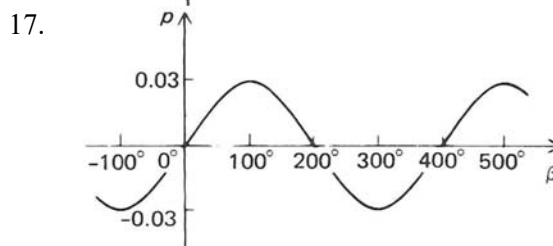
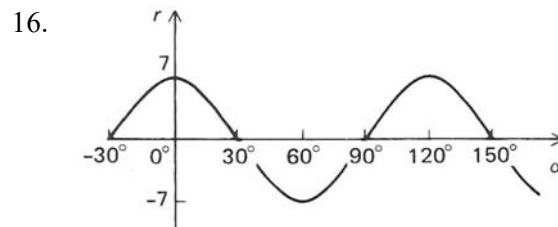
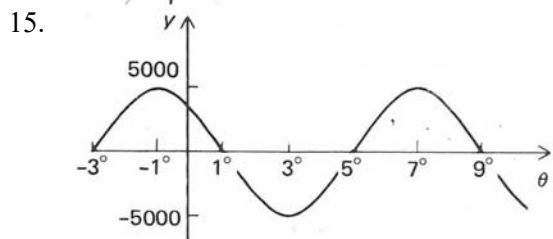
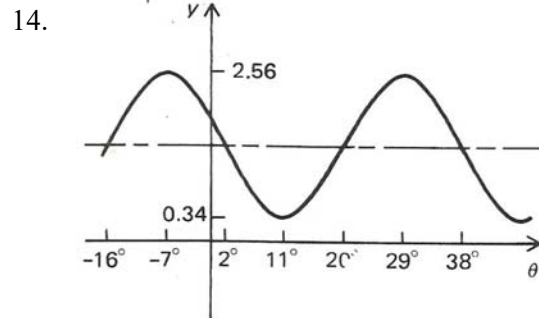
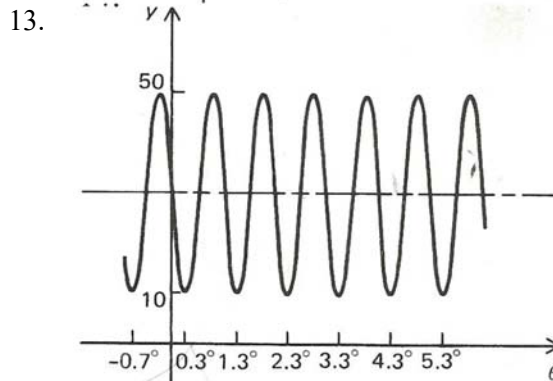
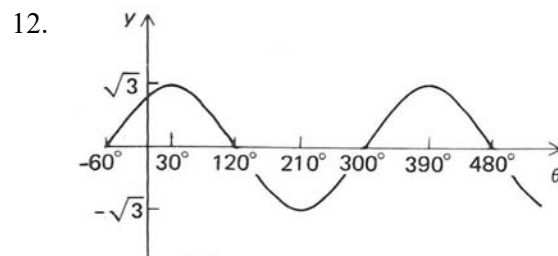
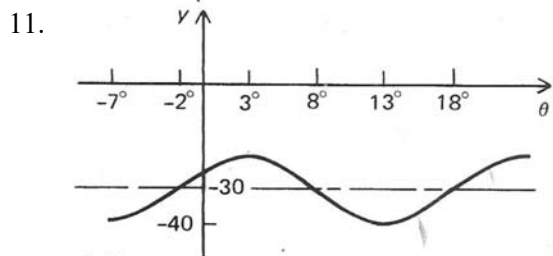
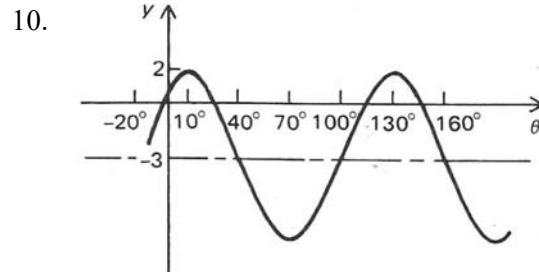
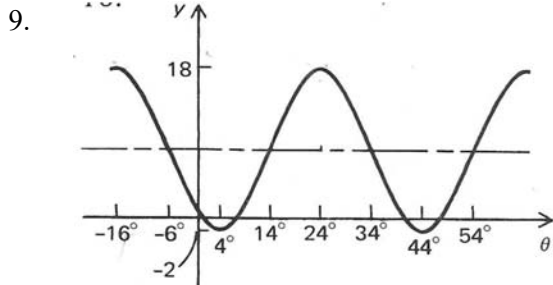
2.  $y = 3 + 5 \cos(4(\theta - 15^\circ))$

4.  $y = -8 + 10 \sin(5(\theta + 6^\circ))$

6.  $y = 1000 + 3000 \sin\left(\frac{1}{3}(\theta + 60^\circ)\right)$

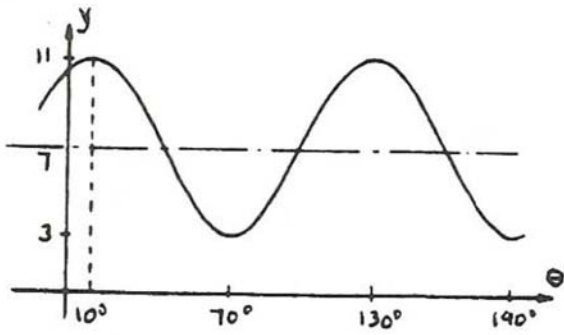
8.  $y = 15 - 2 \cos(\theta - 40^\circ)$

Write 2 equations for the following graphs. One must be a cosine and the other must a sine equation.

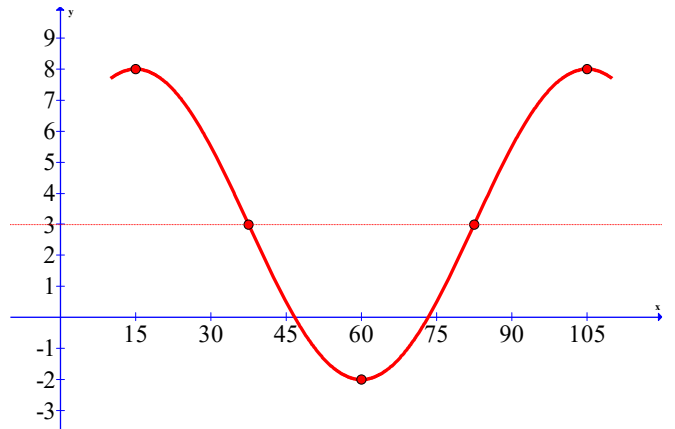


Answers

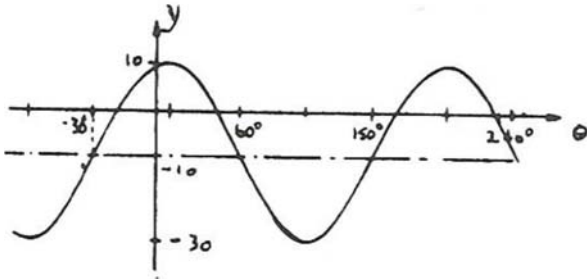
1.



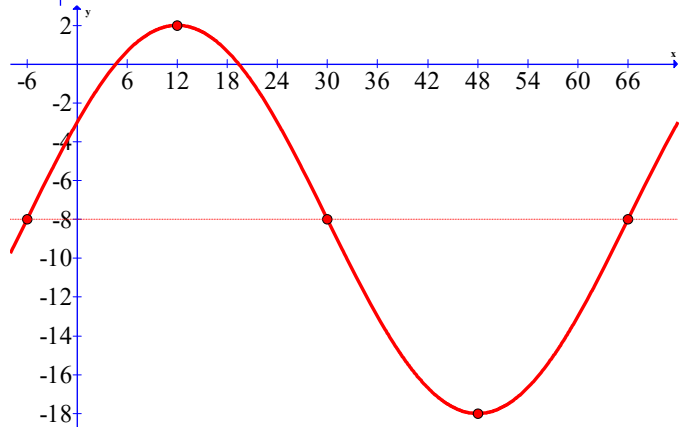
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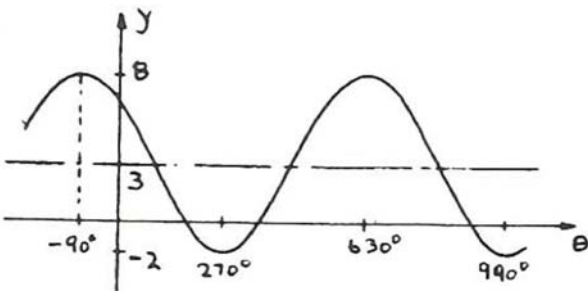
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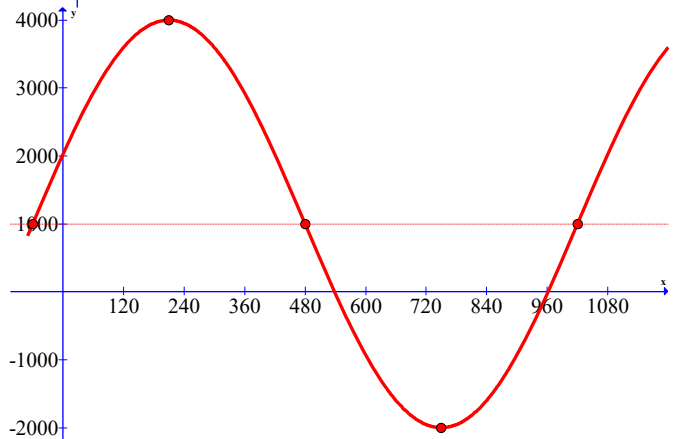
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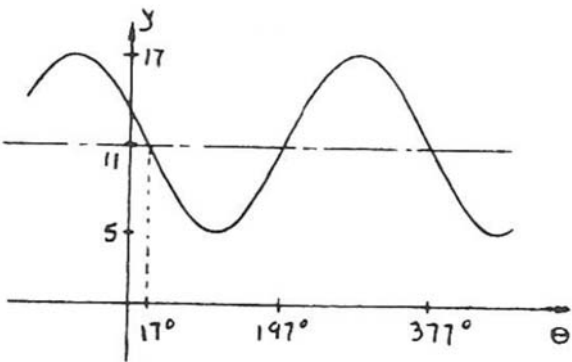
5.



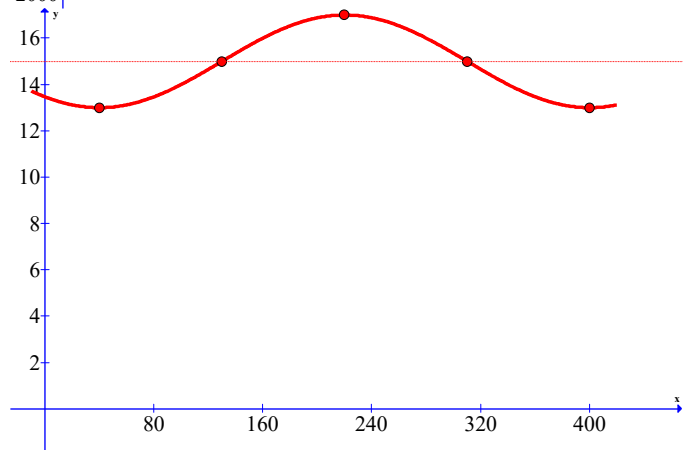
6.



7.



8.



$$9. \quad y = 8 + 10 \cos 9(x - 24^\circ)$$

$$y = 8 + 10 \cos 9(x + 16^\circ)$$

$$y = 8 - 10 \cos 9(x - 4^\circ)$$

$$y = 8 + 10 \sin 9(x - 14^\circ)$$

$$y = 8 + 10 \sin 9(x - 54^\circ)$$

$$y = 8 - 10 \sin 9(x + 6^\circ)$$

$$10. \quad y = -3 + 5 \cos 3(\theta - 10^\circ)$$

$$y = -3 + 5 \sin 3(\theta + 20^\circ)$$

$$11. \quad y = -30 + 10 \cos 18(x - 3^\circ)$$

$$y = -30 + 10 \sin 18(x + 2^\circ)$$

$$12. \quad y = \sqrt{3} \cos(\theta - 30^\circ)$$

$$y = \sqrt{3} \sin(\theta + 60^\circ)$$

$$13. \quad y = 30 + 20 \cos 360(x + 0.2^\circ)$$

$$y = 30 + 20 \sin 360(x + 0.45^\circ)$$

$$y = 30 - 20 \cos 360(x - 0.3)$$

$$y = 30 - 20 \sin 360(x - .05^\circ)$$

$$14. \quad y = 1.45 + 1.11 \cos 10(\theta + 7^\circ)$$

$$y = 1.45 + 1.11 \sin 10(\theta + 16^\circ)$$

$$15. \quad y = 5000 \cos 45(x + 1^\circ)$$

$$y = 5000 \sin 45(x + 3^\circ)$$

$$16. \quad y = 7 \cos 3x$$

$$y = 7 \sin 3(x + 30^\circ)$$

$$17. \quad y = 0.03 \cos \frac{9}{10}(x - 100^\circ)$$

$$y = 0.03 \sin \frac{9}{10}x$$