

Graph one cycle of the following graphs:

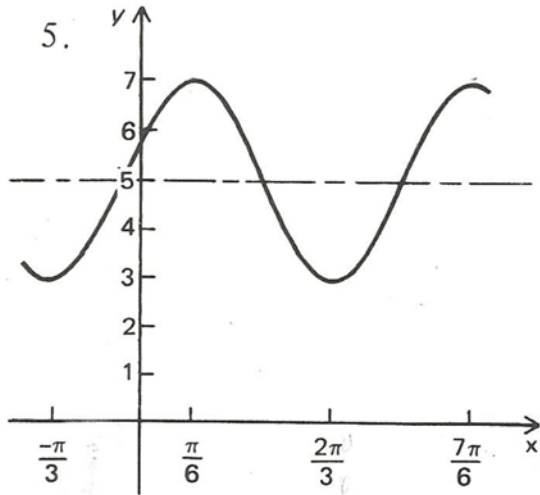
1. $y = 3 + 2 \cos\left(\frac{1}{5}(x - \pi)\right)$

2. $y = -4 + 5 \sin\left(\frac{2}{3}\left(x + \frac{\pi}{2}\right)\right)$

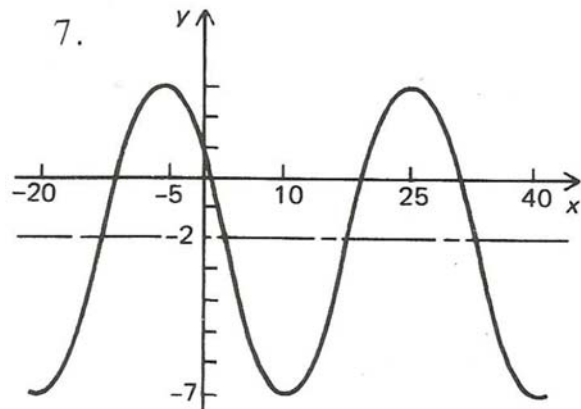
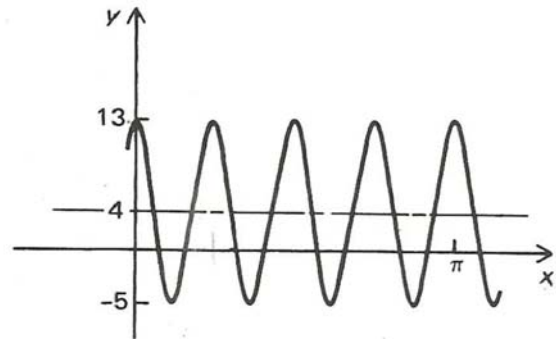
3. $y = 2 + 6 \sin\frac{\pi}{4}(x - 1)$

4. $y = -5 + 4 \cos\left(\frac{\pi}{3}(x + 2)\right)$

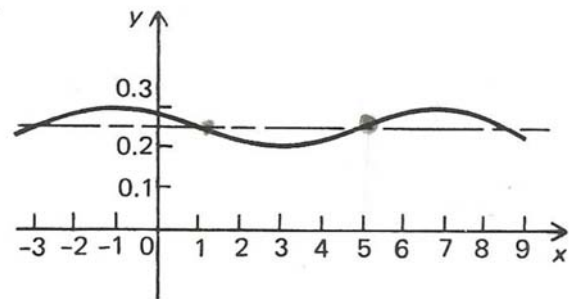
Write 2 equations for the following graphs. One must be a cosine and the other must be a sine equation.



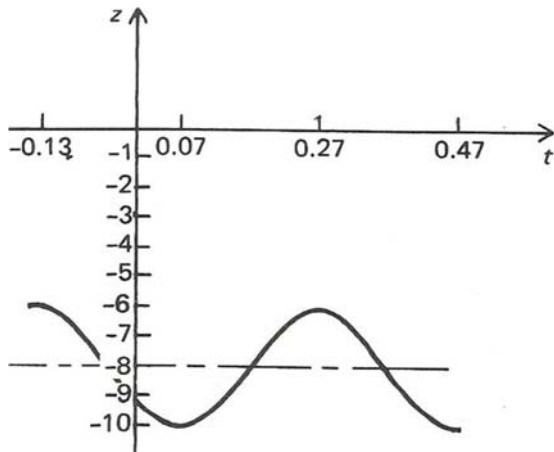
6.



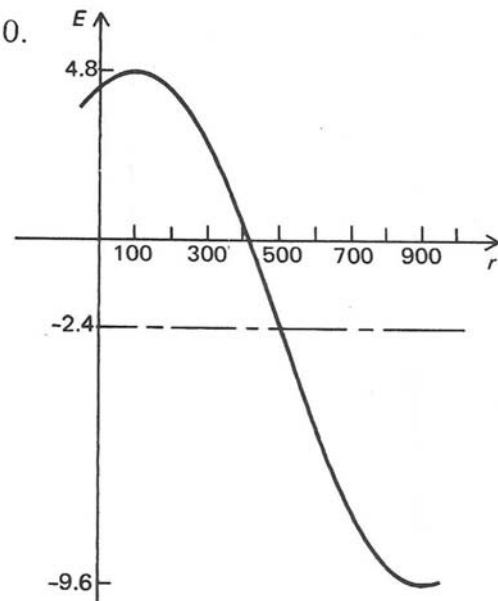
8.



9.

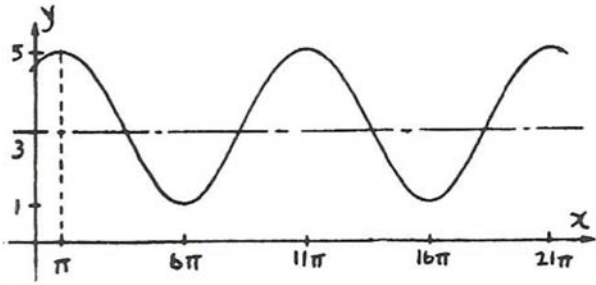


10.

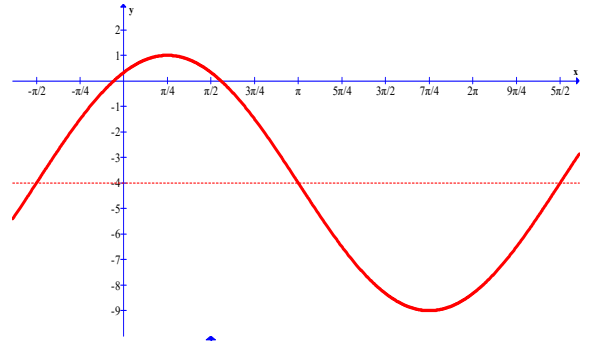


Answers

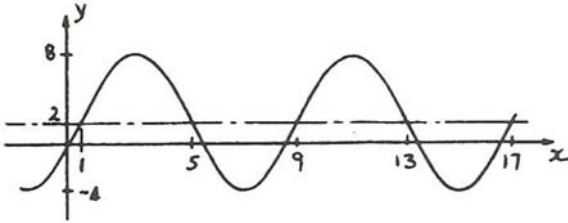
1.



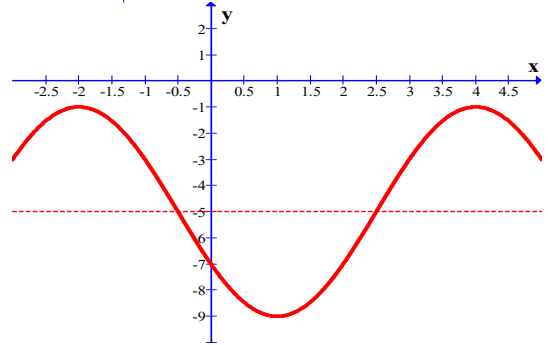
2.



3.



4.



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

$y = 5 + 2 \sin 2\left(x + \frac{\pi}{12}\right)$

6. $y = 4 + 9 \cos 8x$

$y = 4 + 9 \sin 8\left(x + \frac{\pi}{16}\right)$

7. $y = -2 + 5 \cos \frac{\pi}{15}(x + 5)$

$y = -2 + 5 \sin \frac{\pi}{15}(x + 12.5)$

8. $y = 0.25 + 0.05 \cos \frac{\pi}{4}(x + 1)$

$y = 0.25 + 0.05 \sin \frac{\pi}{4}(x + 3)$

9. $y = -8 + 2 \cos 5\pi(x + 0.13)$

$y = -8 + 2 \sin 5\pi(x - 0.17)$

10. $y = -2.4 + 7.2 \cos \frac{\pi}{800}(x - 100)$

$y = -2.4 + 7.2 \sin \frac{\pi}{800}(x + 300)$