

Trig Graph Transformations

Grade C

1. Sketch the following graphs for $0 \leq x < 360$.

(a) $y = 9 \sin x$

(b) $y = 0.4 \cos x$

(c) $y = -3 \sin x$

(d) $y = \sin 5x$

(e) $y = \cos \frac{1}{2}x$

(f) $y = \tan 2x$

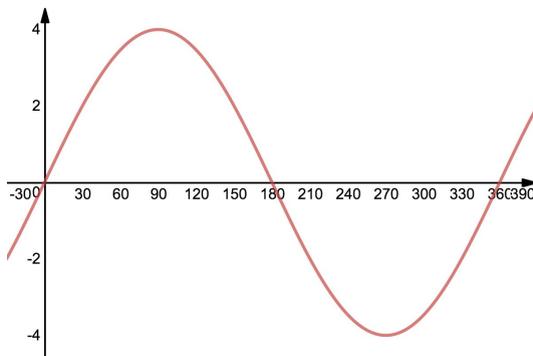
(g) $y = \cos x + 3$

(h) $y = \sin x - 1.5$

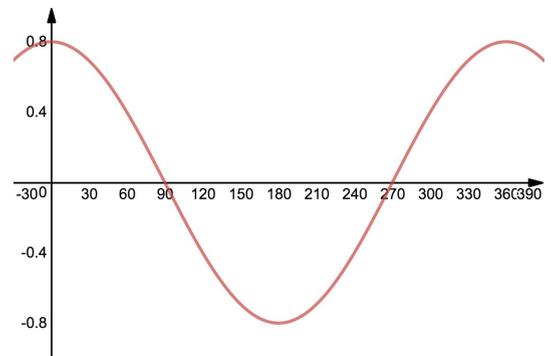
(i) $y = \tan x + 1$

2. Write down the equation of each of these graphs.

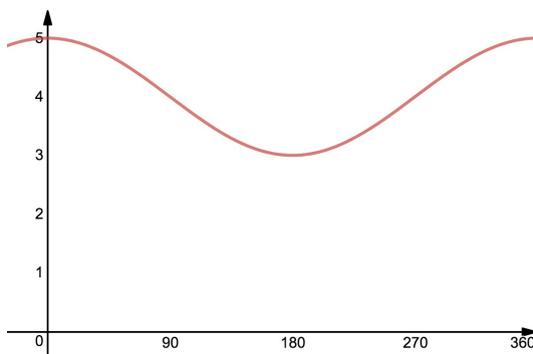
(a)



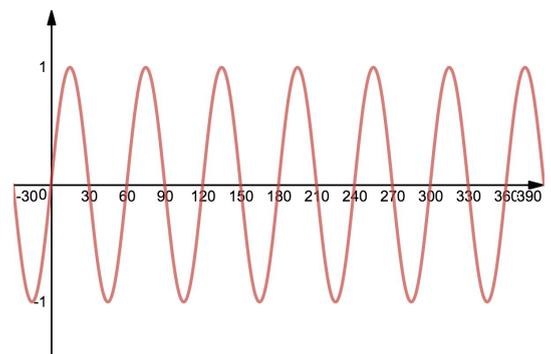
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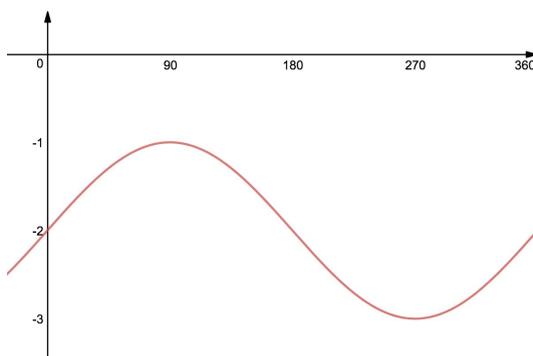
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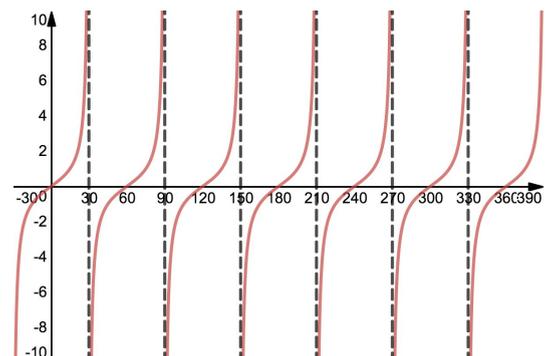
(d)



(e)



(f)



Grade B

1. Sketch each of the following graphs for $0 \leq x < 360$.

(a) $y = 2 \cos 3x$

(b) $y = \frac{1}{2} \sin 4x$

(c) $y = \tan 2x + 1$

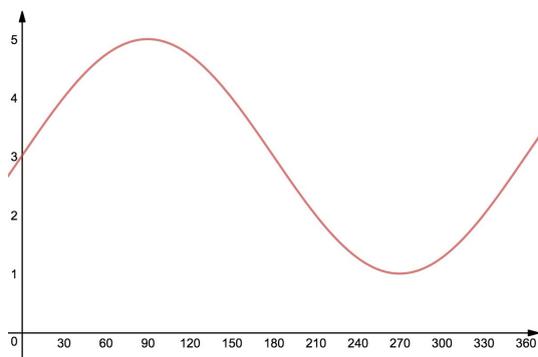
(d) $y = -3 \sin x - 2$

(e) $y = \cos 2x + 3$

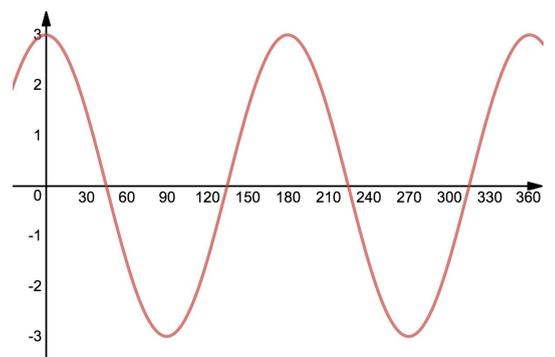
(f) $y = \sin \frac{1}{3}x + 5$

2. Write down the equation of each of these graphs.

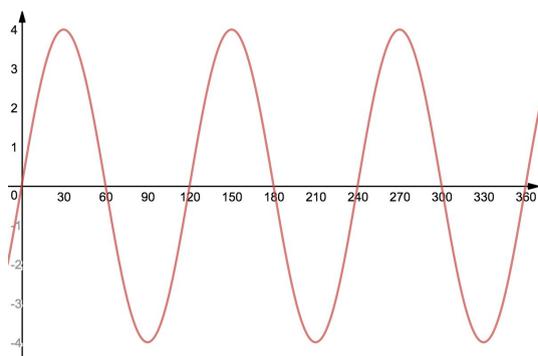
(a)



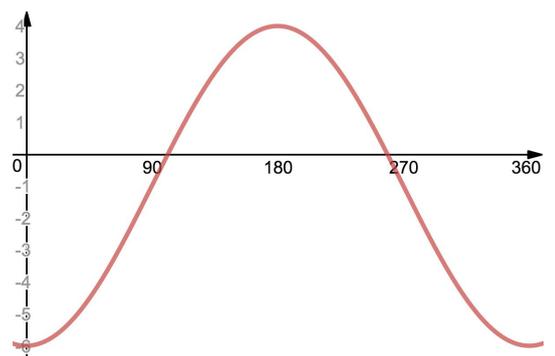
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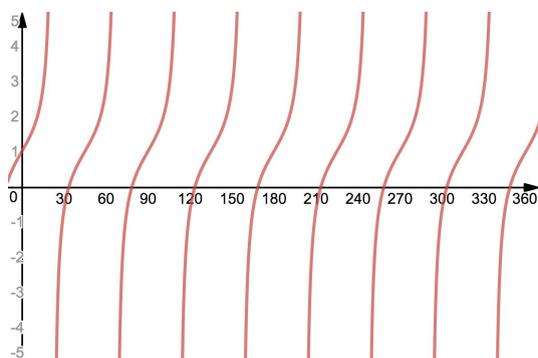
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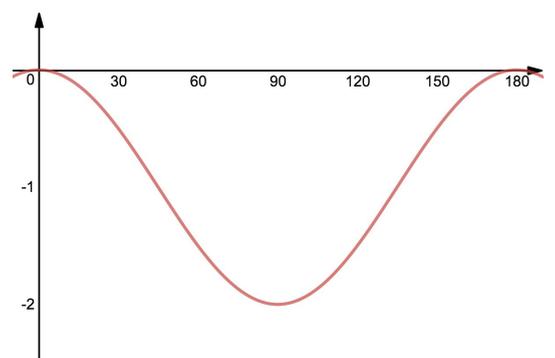
(d)



(e)



(f)



Grade A

1. Sketch each of the following graphs for the stated range.

(a) $y = 2 \sin 2x + 2, \quad 0 \leq x \leq 360$

(b) $y = 0.3 \cos 3x - 1, \quad 0 \leq x \leq 120$

(c) $y = 5 \cos \frac{1}{4}x - 2, \quad 0 \leq x \leq 720$

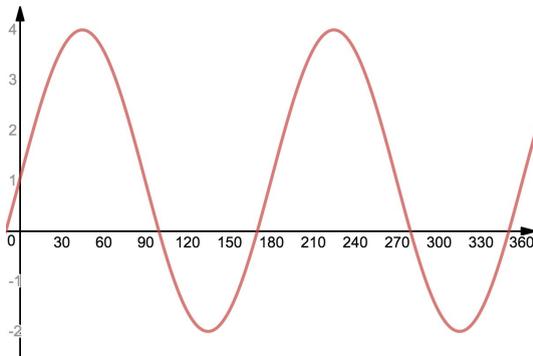
(d) $y = -10 \sin 4x + 7, \quad 0 \leq x \leq 180$

(e) $y = \frac{1}{3} \sin 10x + 1, \quad 0 \leq x \leq 36$

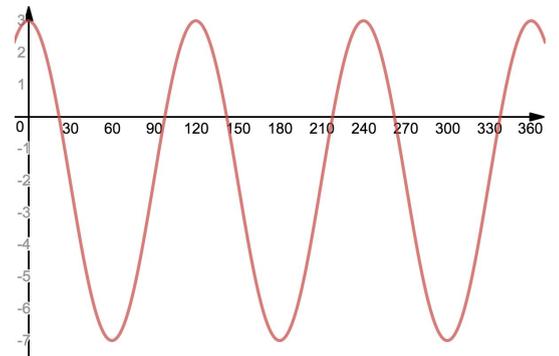
(f) $y = 15 \tan 0.5x + 20, \quad 0 \leq x \leq 360$

2. Write down the equation of each of these graphs.

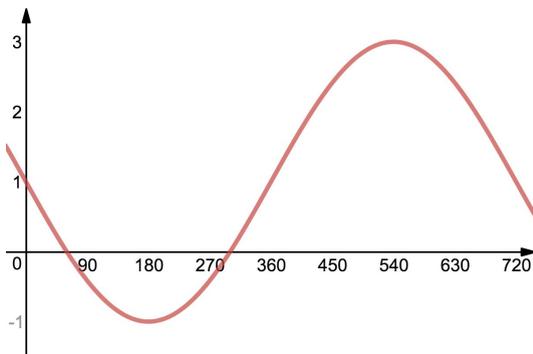
(a)



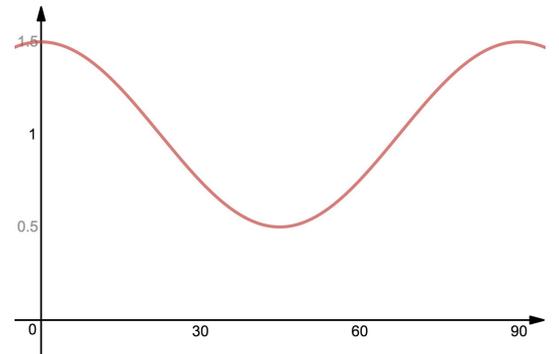
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(c)



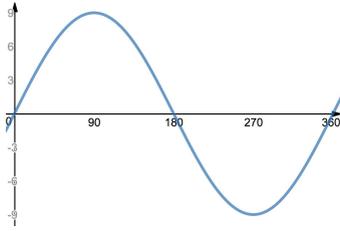
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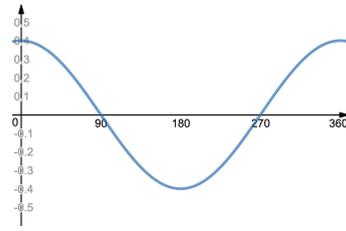
Answers

Grade C

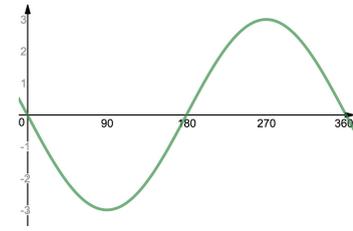
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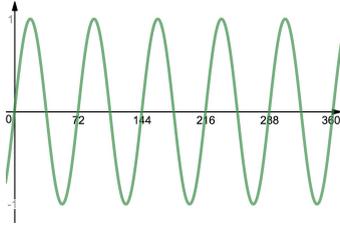
(b)



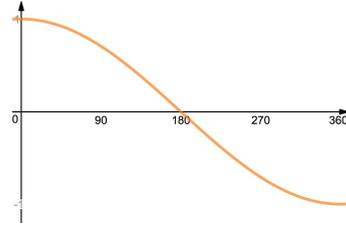
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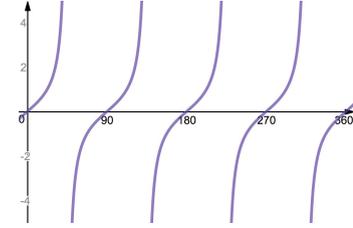
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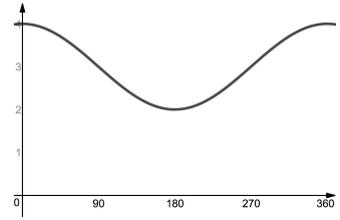
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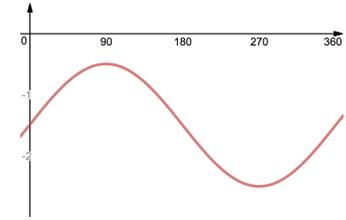
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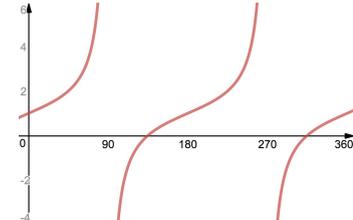
(g)



(h)



(i)

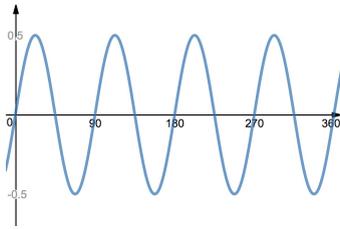


2. (a) $y = 4 \sin x$ (b) $y = 0.8 \cos x$ (c) $y = \cos x + 4$

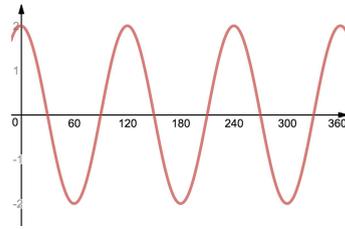
(d) $y = \sin 6x$ (e) $y = \sin x - 2$ (f) $y = \tan 3x$

Grade B

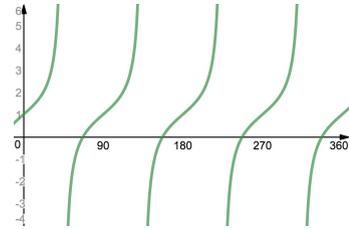
1. (a)



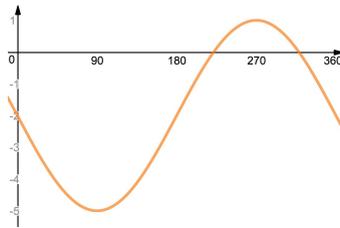
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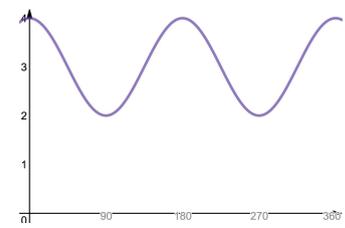
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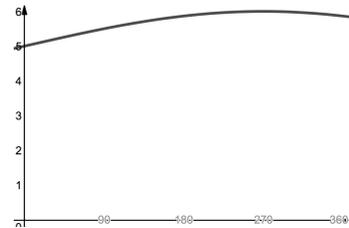
(d)



(e)



(f)

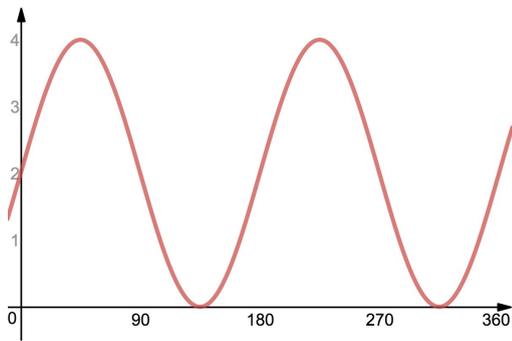


2. (a) $y = 2 \sin x + 3$ (b) $y = 3 \cos 2x$ (c) $y = 4 \sin 3x$

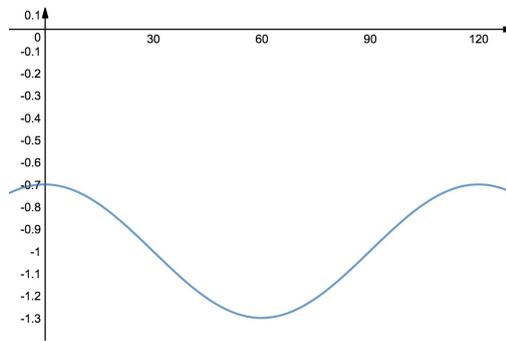
(d) $y = -5 \cos x - 1$ (e) $\tan 4x + 1$ (f) $y = \cos 2x - 1$

Grade A

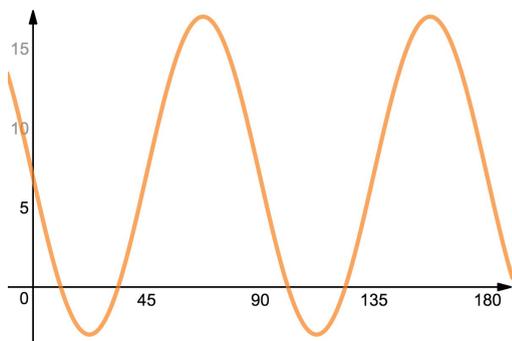
1. (a)



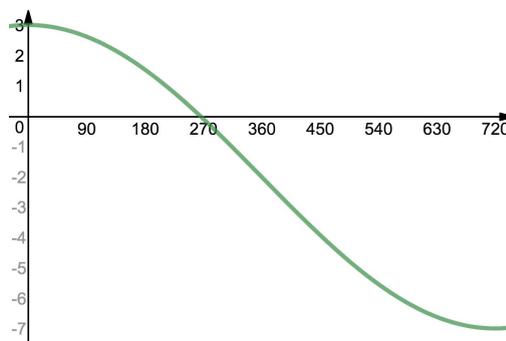
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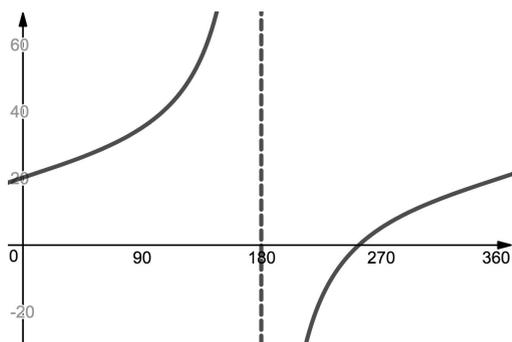
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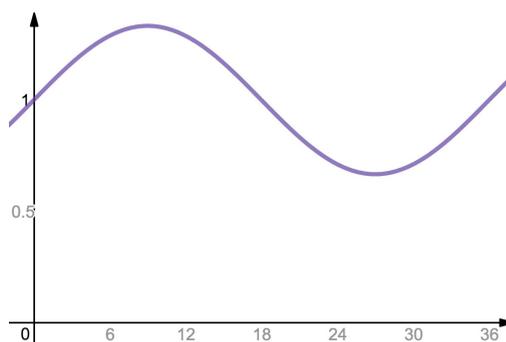
(d)



(e)



(f)



2. (a) $y = 3 \sin 2x + 1$

(b) $y = 5 \cos 3x - 2$

(c) $y = -2 \sin \frac{1}{2}x + 1$

(d) $y = 0.5 \cos 4x + 1$