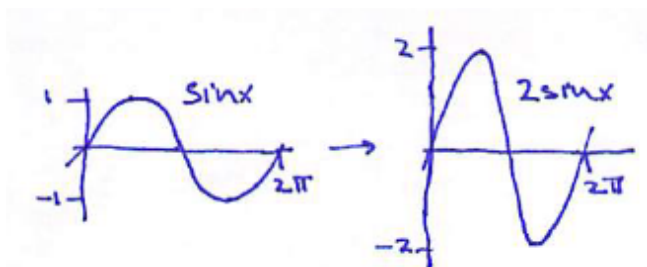


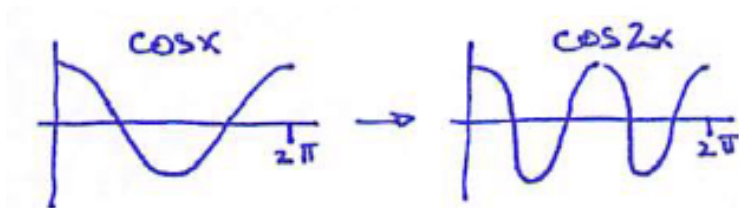
Exercise set 5.4: Sinusoidal Models

Sketch the graph of the equation by translating, reflecting, compressing and stretching the graph of a known base function.

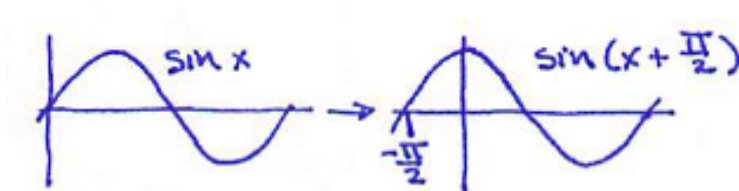
1. $y = 2 \sin x$



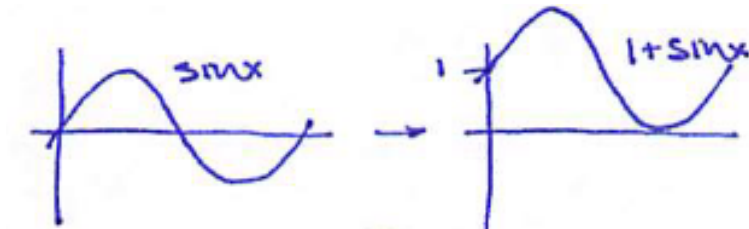
2. $y = \cos 2x$



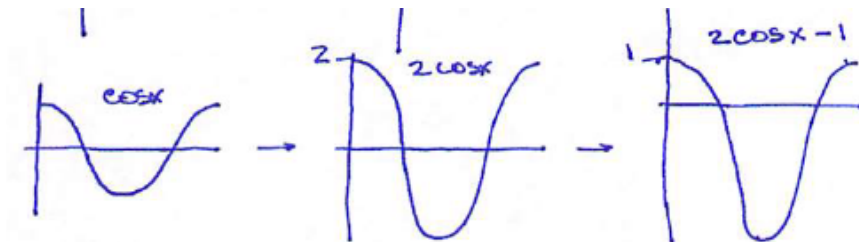
3. $y = \sin(x + \frac{\pi}{2})$



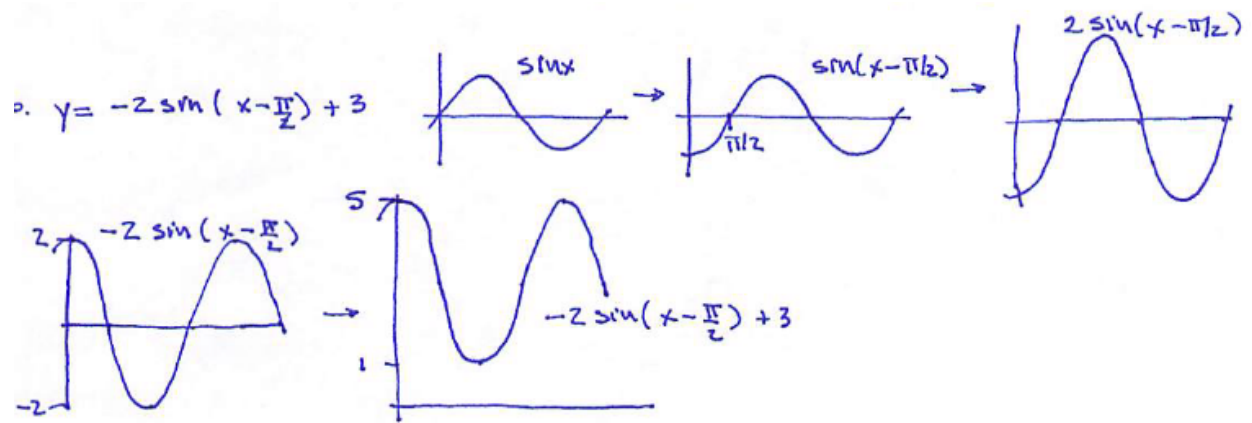
4. $y = 1 + \sin x$



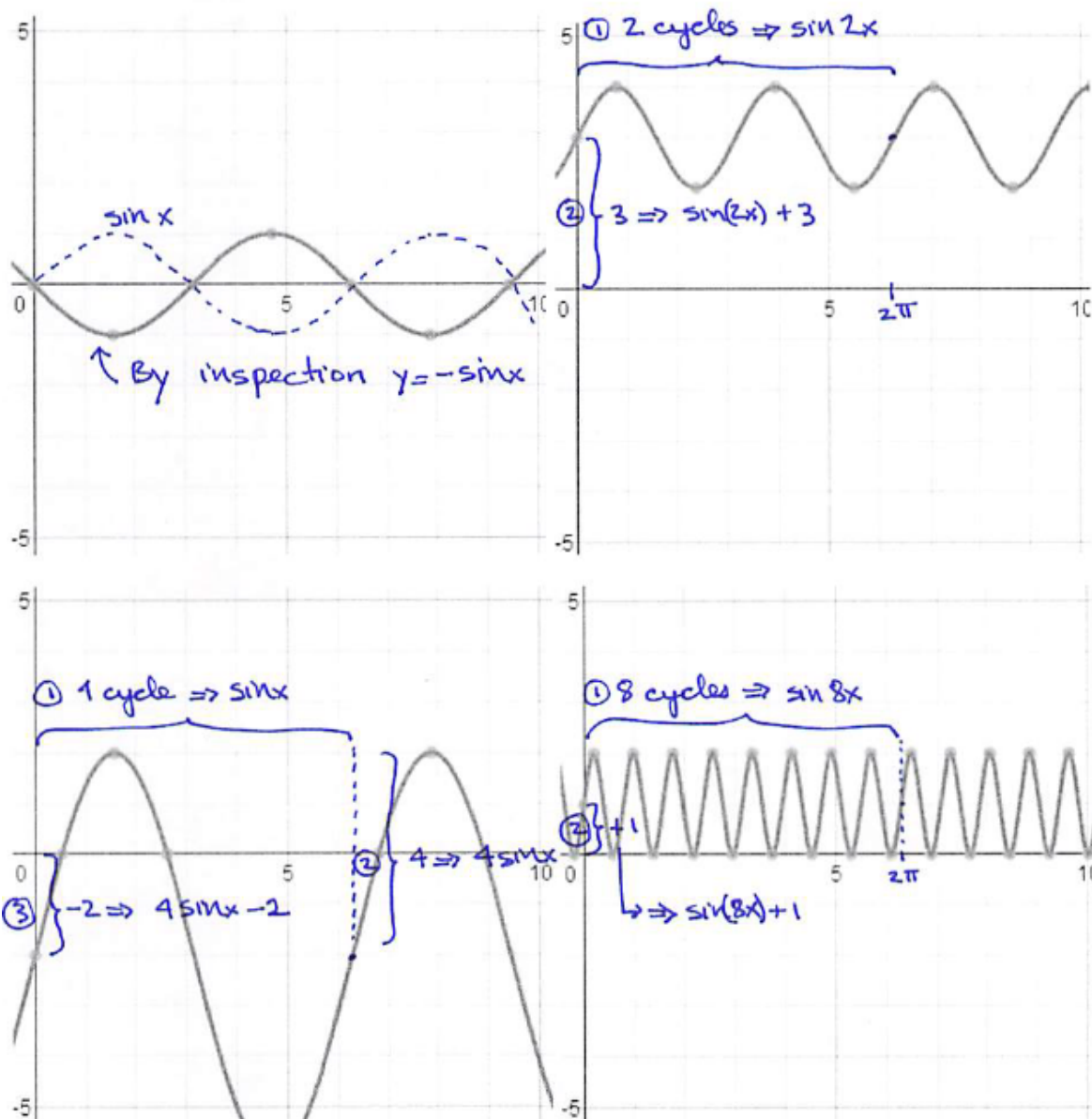
5. $y = 2 \cos x - 1$



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



7. What are the equations of the functions below¹?



¹ Hint 1: They are all based on $\sin x$.

Hint 2: Remember that $2\pi \approx 6.283$.