

# Chapter 4

## Trigonometric Identities II



Fig. 4-1: The  $R$  addition formula illustrated ( $\sin x + \cos x$ ).

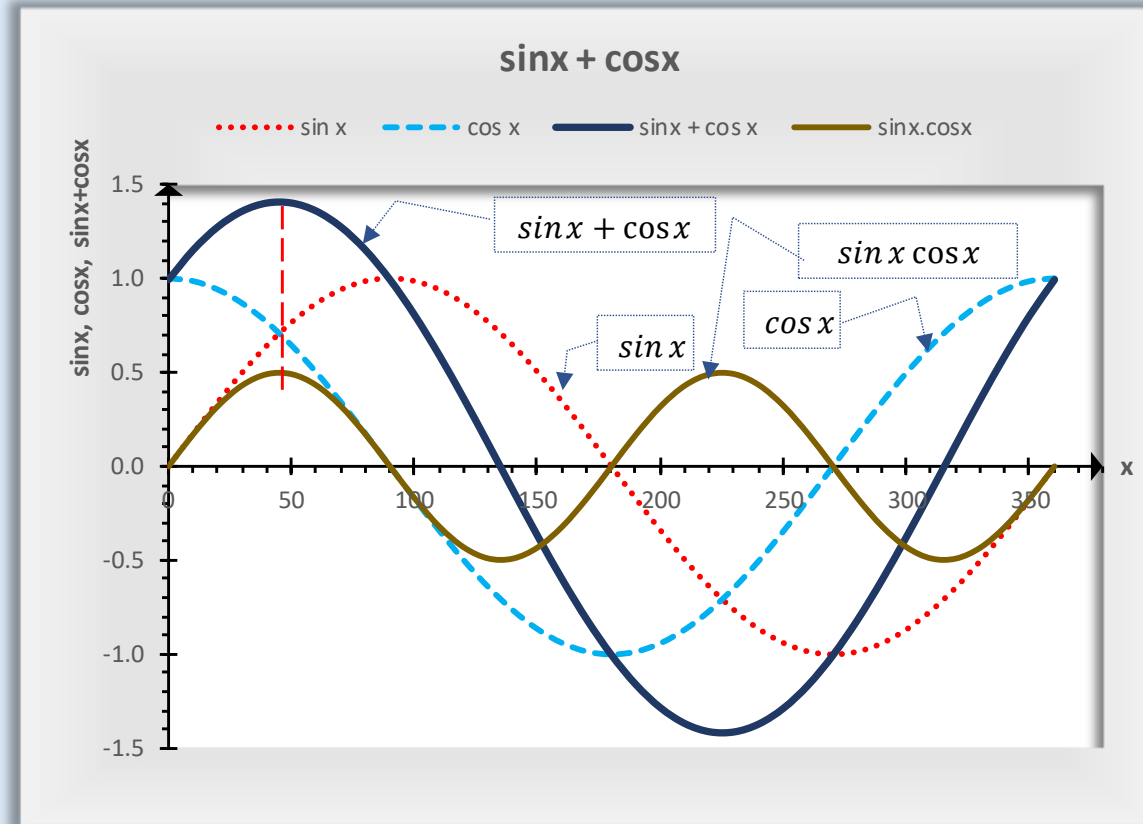
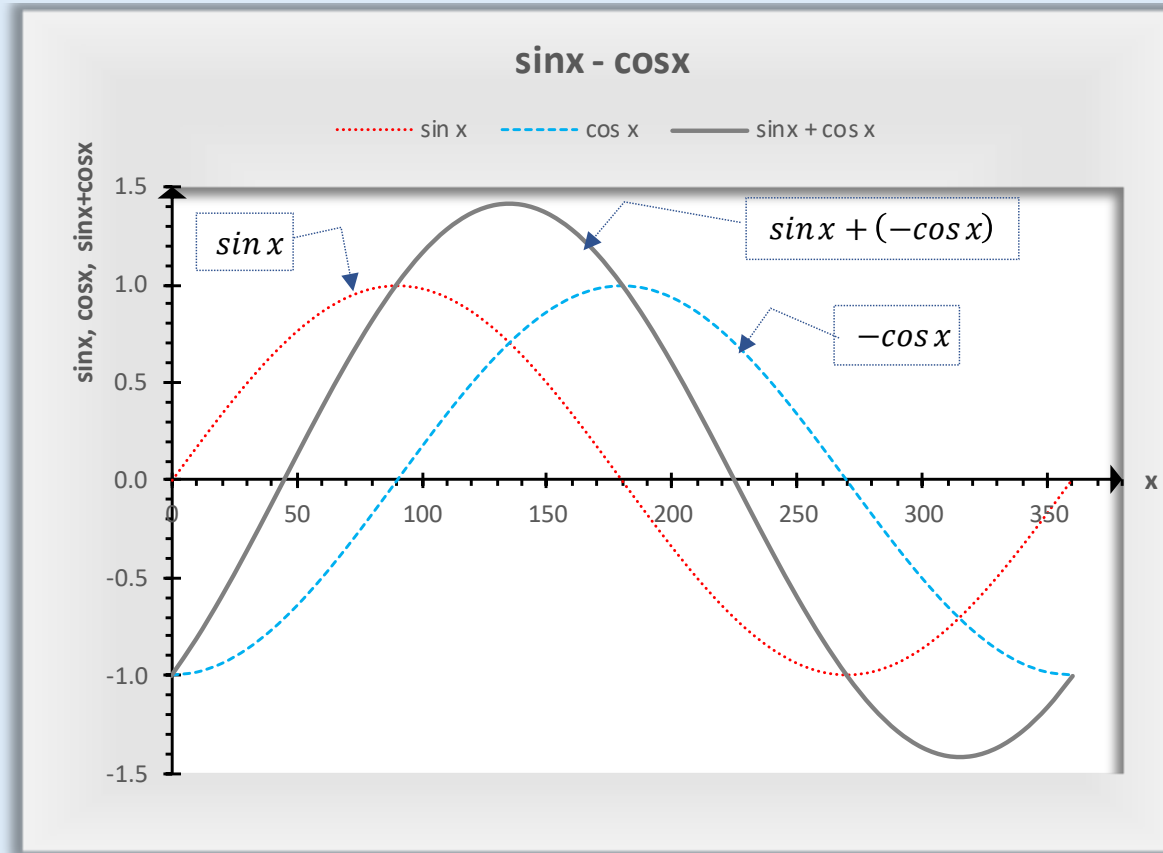


Fig. 4-2 : The  $R$  addition formula illustrated ( $\sin x - \cos x$ ).



**Fig. 4-3 : The  $R$  addition formula illustrated ( $3\sin x + 4\cos x$ ).**

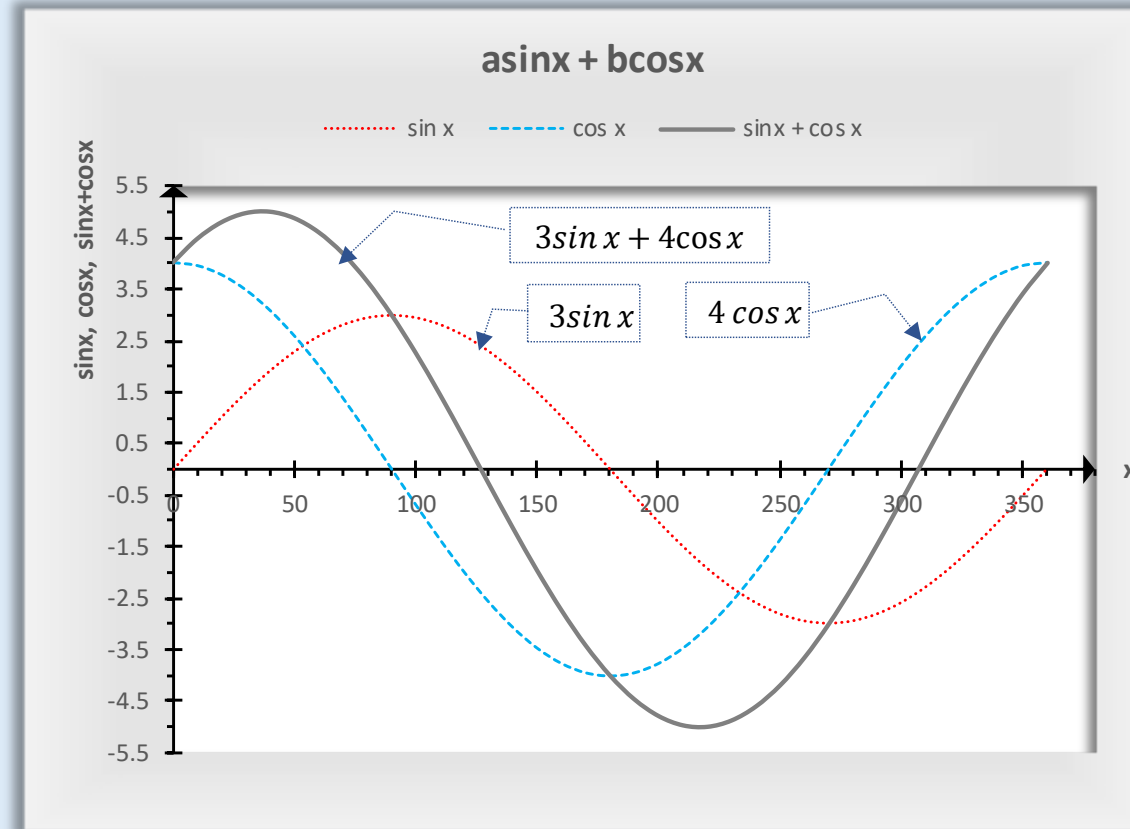


Fig. 4-4: Solution to Example 5(c) – Part I.

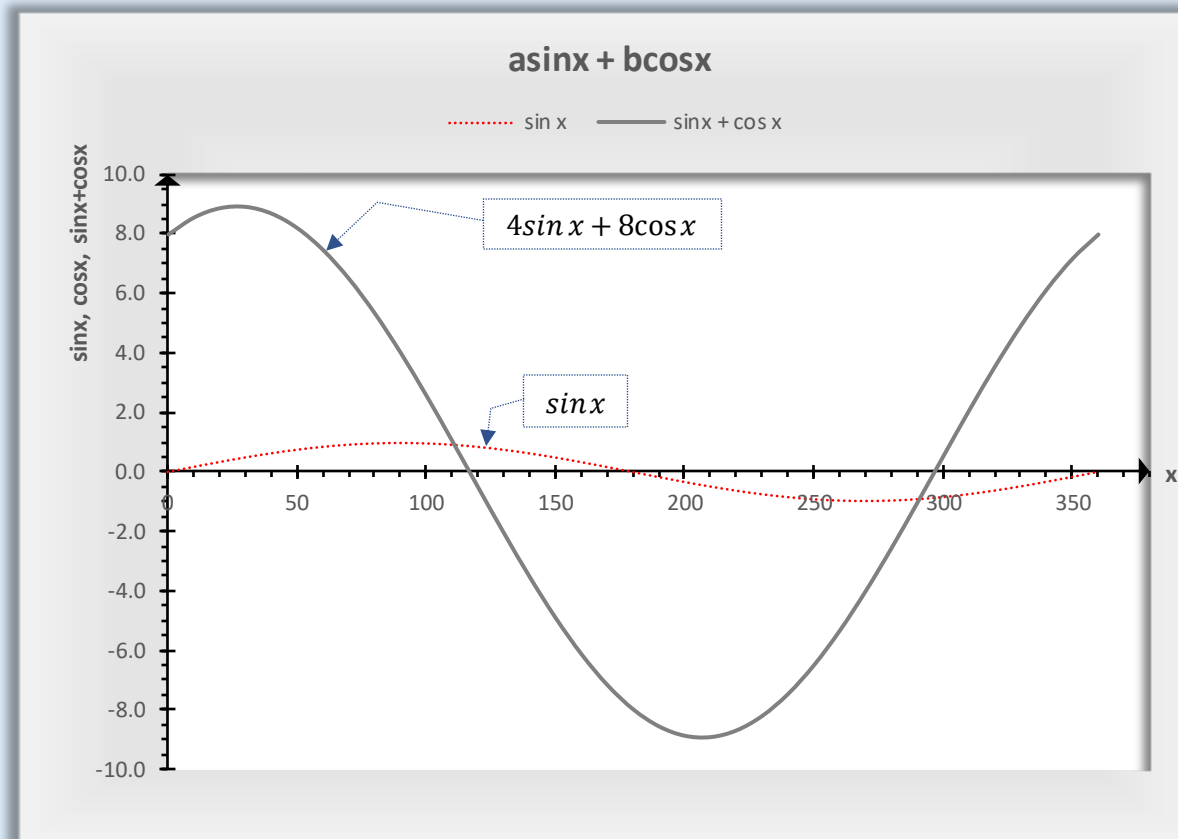


Fig. 4-5: Solution to Example 5(c) – Part II.

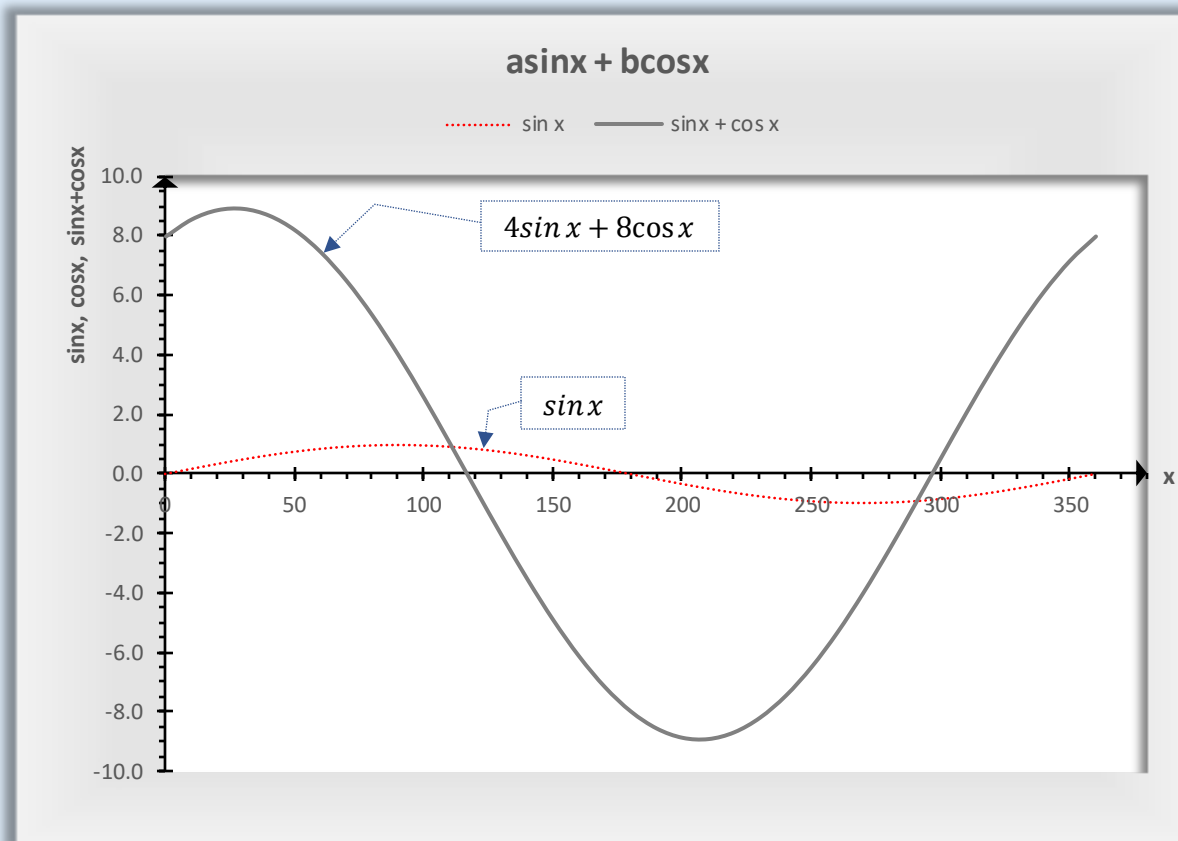
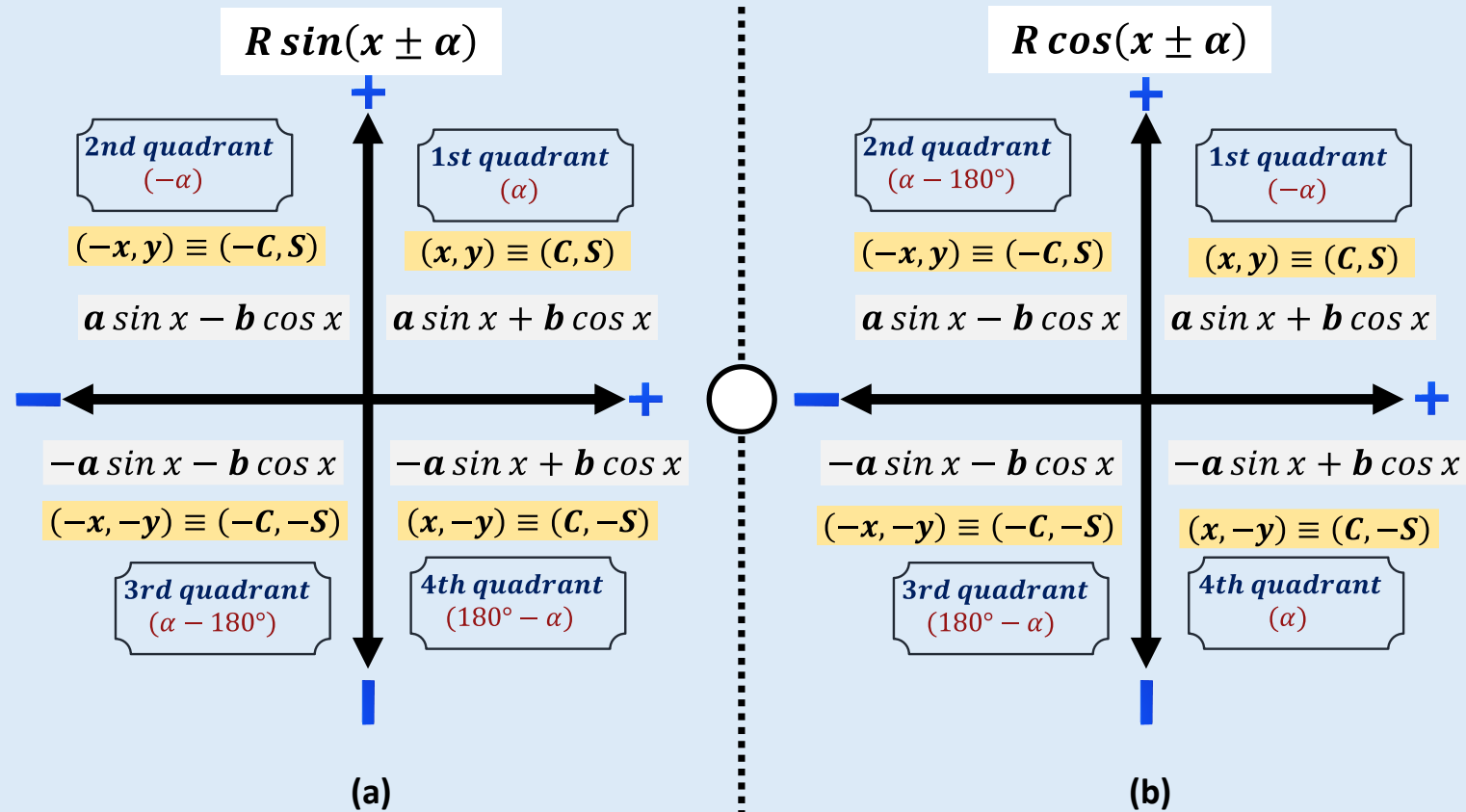
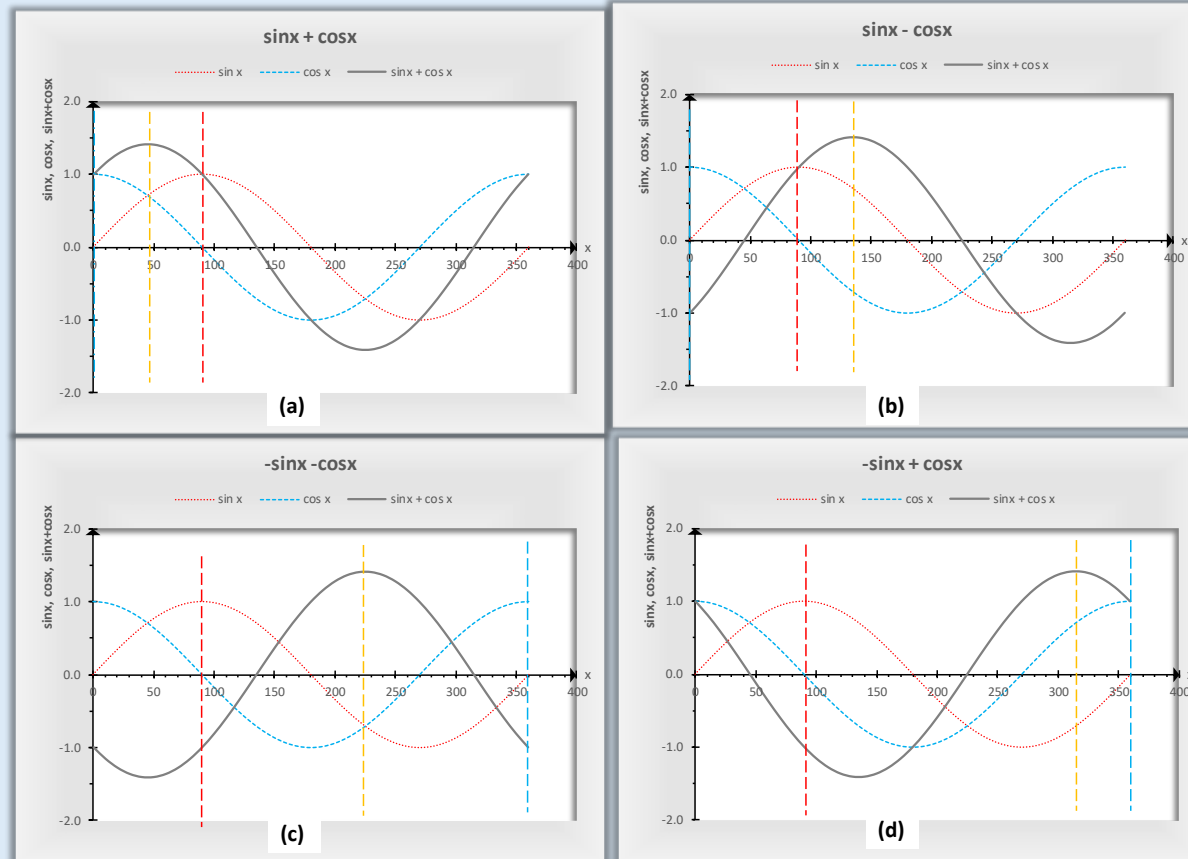


Fig. 4-6: The  $R$  formulas – author's method illustrated.



**Fig. 4-7: The R formulas: (a) first quadrant ( $\sin x + \cos x$ ), (b) second quadrant  $\sin x - \cos x$ , (c) third quadrant  $-\sin x - \cos x$ , and (d) fourth quadrant  $-\sin x + \cos x$ .**





# Thank You

