



# MATHS

**BOOKS - RD SHARMA MATHS**

**(ENGLISH)**

**GRAPHS OF TRIGONOMETRIC  
FUNCTIONS**

**Others**

1. Sketch the following graphs:  $y = 2 \sin 2x$  (ii)

$$y = 3 \sin x$$



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2. Sketch the graphs of the following functions

on the same scale.

$$y = \cos x \text{ and } y = \cos\left(x - \frac{\pi}{4}\right)$$

$$y = \cos 2x \text{ and } y = \cos 2\left(x - \frac{\pi}{4}\right)$$

$$y = \cos x \text{ and } y = \cos\left(\frac{x}{2}\right)$$



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3. sketch the graph of  $y = 3 \sin(2x - 1)$



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4. Sketch the graph of  $y = 3x$



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5. Sketch the following graphs :  $Y = \sin x$  and  $y = \sin 2x$  on same axes.





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6. Sketch the graph of the following pairs of functions on the same axes:

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



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7. Sketch the graph of the following pairs of functions on the same axes:  $y = \sin 3x$



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8. Draw the sketch of the graph of

$$y = 3 \cos 2x.$$



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9. Sketch the graph of  $y = \cos\left(x - \frac{\pi}{4}\right)$ .



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10. Sketch the graphs of

$y = \cos 2x$  and  $y = \cos\left(2x - \frac{\pi}{4}\right)$  on the

same scale.



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11. Sketch the following graph:

$$y = \cos\left(x + \frac{\pi}{4}\right)$$



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12. Sketch the following graph:

$$y = \cos\left(x - \frac{\pi}{4}\right)$$



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**13.** Sketch the following graph:

$$y = 3 \cos(2x - 1)$$



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**14.** Sketch the following graph:

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



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**15.** Sketch the graph of the following function:

$$y = \sin^2 x$$



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**16.** Sketch the graph of the following function:

$$y = \cos^2 x$$



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**17.** Sketch the graph of the following function:

$$y = \tan 2x$$



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**18.** Sketch the graph of the following function:

$$y = 2 \cot 2x$$



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**19.** Sketch the graph of the following functions

on the same scale:

$$y = \cos 2x, \quad y = \cos\left(2x - \frac{\pi}{3}\right)$$



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**20.** Sketch the graph of the following

functions on the same scale:

$$y = \tan x, \quad y = \tan^2 x$$



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21. Sketch the graph of the following functions on the same scale:  $y = \sin^2 x$ ,  $y = \sin x$



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22. Sketch the graph of the following functions on the same scale:  $y = \tan 2x$ ,  $y = \tan x$



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