

Inverse Laplace Transform



PROPERTY OF LINEARITY

CHOOSE THE CORRECT ANSWER

Find the **Inverse Laplace transform** for the following equation by using the property of **linearity of Laplace Transform**

01

$$F(s) = \frac{2s+5}{s^2+25}$$



$$f(t) = 2 \sin 5t + \cos 5t$$

$$f(t) = 2 \cos 5t + \sin 5t$$

$$f(t) = \cos 5t + 2 \sin 5t$$

02

$$f(t) = 6 \cosh 7t - \frac{4}{7} \sinh 7t$$

$$f(t) = \cosh 7t - \frac{4}{7} \sinh 7t$$

$$f(t) = 6 \cosh 7t - 4 \sinh 7t$$

$$F(s) = \frac{6s-4}{s^2-49}$$



03

$$F(s) = \frac{s+9}{s^2+9}$$



$$f(t) = \sin 3t + 3 \cos 3t$$

$$f(t) = \cos 3t + \sin 3t$$

$$f(t) = \cos 3t + 3 \sin 3t$$