

1. Through which of the following is the general solution of the given differential equation obtained?



- a. Characteristic equation of the case
- b. Characteristic equation of the case
- c. Characteristic equation of the case
- d. Characteristic equation

2. A particular integral of the differential equation is

- a.  $\frac{1}{2} \sin 2x - \frac{1}{4} \cos 2x$
- b.  $\frac{1}{2} \sin 2x + \frac{1}{4} \cos 2x$
- c.  $\frac{1}{2} \sin 2x - \frac{1}{4} \cos 2x$
- d.  $\frac{1}{2} \sin 2x + \frac{1}{4} \cos 2x$

3. Which of the following is the correct form of the particular integral of the differential equation  $y'' + 4y = \sin 2x$ ?

4. Which of the following is the correct form of the particular integral of the differential equation  $y'' + 4y = \sin 2x$ ?

5. Which of the following is the correct form of the particular integral of the differential equation  $y'' + 4y = \sin 2x$ ?

- a.  $\frac{1}{2} \sin 2x - \frac{1}{4} \cos 2x$
- b.  $\frac{1}{2} \sin 2x + \frac{1}{4} \cos 2x$