Assignment Math45-Module-13-Exercises due 11/05/2020 at 11:59pm PST

According to the video, which of the following expression would we begin with to find a particular solution for the differential equation 4y'' + 4y' + 4y = 6x - 5?

• A. $y_p = Ax^2 + Bx + C + D\cos(x) + E\sin(x)$

• B. $y_p = A\cos(x) + B\sin(x)$

• C. $y_p = Ax^2e^x + Bxe^x + Ce^x$

• D. $y_p = Ax^2 + Bx + C$

Solution:

SOLUTION:

The correct answer is D.

Correct Answers:

• D

According to the video, which of the following expression would we begin with to find a particular solution for the differential equation $8y'' + 2y' + 4y = 3\sin(x) - 5\sin(x)$?

• A. $y_p = A\cos(x) + B\sin(x)$

• B. $y_p = Ax^2 + Bx + C$

• C. $y_p = Ax^2e^x + Bxe^x + Ce^x$

• D. $y_D = Ax^2 + Bx + C + D\cos(x) + E\sin(x)$

Solution:

SOLUTION:

The correct answer is A.

Correct Answers:

A

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According to the video, which of the following expression would we begin with to find a particular solution for the differential equation $7y'' + 7y' + 5y = 4x^2e^{9x} + 3e^{9x}$?

• A. $y_p = Ax^2e^x + Bxe^x + Ce^x$

• B. $y_p = Ax^2 + Bx + C$

• C. $y_p = Ax^2e^{9x} + Bxe^{9x} + Ce^{9x}$

• D. $y_p = A\cos(x) + B\sin(x)$

Solution:

SOLUTION:

The correct answer is C.

Correct Answers:

• C

According to the video, which of the following expression would we begin with to find a particular solution for the differential equation $9y'' + 8y' + 3y = 6x^2 + 6x + 7\cos(x)$?

• A. $y_p = Ax^2 + Bx + C + D\cos(x) + E\sin(x)$

• B. $y_p = A\cos(x) + B\sin(x)$

• C. $y_n = Ax^2e^x + Bxe^x + Ce^x$

• D. $y_p = Ax^2 + Bx + C + D\cos(x)$

Solution:

SOLUTION:

The correct answer is A.

Correct Answers:

• A

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