

---

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

**Solution:**

SOLUTION:

The correct answer is A.

*Correct Answers:*

- A

---

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.  $y_p = Ax^2e^x + Bxe^x + Ce^x$
- D.  $y_p = Ax^2 + Bx + C + D\cos(x)$

**Solution:**

SOLUTION:

The correct answer is A.

*Correct Answers:*

- A