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. $y_p = Ax^2 e^x + Bxe^x + Ce^x$

- D. $y_p = Ax^2 + Bx + C$

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

- A. $y_p = Ax^2 e^x + Bxe^x + Ce^x$

- B. $y_p = Ax^2 + Bx + C$

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

- D. $y_p = A\cos(x) + B\sin(x)$

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. $y_p = Ax^2 e^x + Bxe^x + Ce^x$

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

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. $y_p = Ax^2 e^x + Bxe^x + Ce^x$

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