Problem 9.12:

12. Compute the indefinite integral of $p(x) = 5x^2 - 9x + 8$.

Problem setup:

$$p(x) = 5x^2 - 9x + 8$$

$$q(x) = \int (5x^2 - 9x + 8)dx + C$$

$$q(x) = 5\left(\frac{x^3}{3}\right) - 9\left(\frac{x^2}{2}\right) + 8x + C$$

$$q(x) = \left(\frac{5}{3}\right)x^3 - \left(\frac{9}{2}\right)x^2 + 8x + C$$

```
% Problem 9.12
clear
clc
disp('Problem 9.12: Scott Thomas')

p = [5 -9 8]
q = polyint(p)
```

```
Problem 9.12: Scott Thomas

p =

     5    -9     8


q =

  Columns 1 through 3

   1.666666666666667  -4.500000000000000   8.000000000000000

  Column 4

                   0
```