

Problem 9.20:

20. Compute the expressions for dp_2/dx , $d(p_1p_2)/dx$, and $d(p_2/p_1)/dx$ for $p_1 = 5x^2 + 7$ and $p_2 = 5x^2 - 6x + 7$.

```
% Problem 9.20
clear
clc
disp('Problem 9.20: Scott Thomas')

p1 = [5 0 7]
p2 = [5 -6 7]

% Derivative of p2:
der2 = polyder(p2)
% Derivative of p1*p2:
prod = polyder(p1,p2)
% Derivative of p2/p1:
[num, den] = polyder(p2,p1)
```

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p1 =

5 0 7

p2 =

5 -6 7

der2 =

10 -6

prod =

100 -90 140 -42

num =

30 0 -42

den =

25 0 70 0 49