Diff03 for No.9395

$$No01 = \begin{bmatrix} .1 = (f(x) = (3x-2)^9) & .2 = (f(x) = (2x^3+2x+9)^5) \\ .3 = (f(x) = \sqrt{2x-7}) & .4 = \left(f(x) = \dfrac{1}{2x^4-5}\right) \\ .5 = \left(f(x) = \dfrac{1}{(4x^3-3x-3)^5}\right) & .6 = \left(f(x) = \dfrac{1}{\sqrt{7-8x}}\right) \\ .7 = (f(x) = (5x+3)^4(2x-3)) & .8 = \left(f(x) = \dfrac{(5x+3)^4}{(2x-3)^4}\right) \end{bmatrix}$$

No2 : k = 4

x	f(x)	f'(x)	g(x)	g'(x)
-6	2	-16	3	6
-5	1	-14	4	5
-4	0	-12	5	4
-3	-1	-10	6	3
-2	-2	-8	7	2
-1	-3	-6	-6	1
0	-4	-4	-5	0

x	f(x)	f'(x)	g(x)	g'(x)
1	-5	-2	-4	-1
2	-6	0	-3	-2
3	7	2	-2	-3
4	6	4	-1	-4
5	5	6	0	-5
6	4	8	1	-6
7	3	10	2	-7

No3 : k = 7

x	-8	-7	-6	-5	-4	-3	-2	-1	0
g(x)	4	3	2	1	0	-1	-2	-3	-4
g'(x)	6	5	4	3	2	1	0	-1	-2

x	1	2	3	4	5	6	7	8	9
g(x)	-5	-6	-7	-8	9	8	7	6	5
g'(x)	-3	-4	-5	-6	-7	-8	-9	-10	-11

$$No04 = \left[x(t) = \frac{4t^2}{2+t^2}, P(x) = 6\sqrt{x} - 13, k = 3 \right]$$

Diff03 for No.9419

$$No01 = \begin{bmatrix} .1 = (f(x) = (7x-5)^6) & .2 = (f(x) = (3x^4-5x+5)^5) \\ .3 = (f(x) = \sqrt{5-3x}) & .4 = \left(f(x) = \frac{1}{3x^7-5}\right) \\ .5 = \left(f(x) = \frac{1}{(2x^3+2x+7)^3}\right) & .6 = \left(f(x) = \frac{1}{\sqrt{2-7x}}\right) \\ .7 = (f(x) = (6x+5)(2x-7)^4) & .8 = \left(f(x) = \frac{(6x+5)^4}{(2x-7)^4}\right) \end{bmatrix}$$

No2 : k = 2

x	f(x)	f'(x)	g(x)	g'(x)
-6	2	-12	0	7
-5	3	-10	-1	6
-4	4	-8	-2	5
-3	5	-6	-3	4
-2	6	-4	-4	3
-1	7	-2	-5	2
0	-6	0	-6	1

x	f(x)	f'(x)	g(x)	g'(x)
1	-5	2	7	0
2	-4	4	6	-1
3	-3	6	5	-2
4	-2	8	4	-3
5	-1	10	3	-4
6	0	12	2	-5
7	1	14	1	-6

No3 : k = 5

x	-8	-7	-6	-5	-4	-3	-2	-1	0
g(x)	-1	0	1	2	3	4	5	6	7
g'(x)	16	14	12	10	8	6	4	2	0

x	1	2	3	4	5	6	7	8	9
g(x)	8	9	-8	-7	-6	-5	-4	-3	-2
g'(x)	-2	-4	-6	-8	-10	-12	-14	-16	-18

$$No04 = \left[x(t) = \frac{7t^2}{4+t^2}, P(x) = 8\sqrt{x} - 15, k = 2 \right]$$

Diff03 for No.9428

$$No01 = \left[\begin{array}{cc} .1 = \left(f(x) = (3x+2)^9\right) & .2 = \left(f(x) = (2x^3+2x+9)^7\right) \\ .3 = \left(f(x) = \sqrt{6x-7}\right) & .4 = \left(f(x) = \frac{1}{3x^3+4}\right) \\ .5 = \left(f(x) = \frac{1}{(2x^3+2x+3)^5}\right) & .6 = \left(f(x) = \frac{1}{\sqrt{4x-7}}\right) \\ .7 = \left(f(x) = (5x+7)(3x-8)^3\right) & .8 = \left(f(x) = \frac{(5x+7)^3}{(3x-8)^3}\right) \end{array}\right]$$

No2 : k = 6

x	f(x)	f'(x)	g(x)	g'(x)
-6	-3	16	1	-6
-5	-4	14	2	-5
-4	-5	12	3	-4
-3	-6	10	4	-3
-2	7	8	5	-2
-1	6	6	6	-1
0	5	4	7	0

x	f(x)	f'(x)	g(x)	g'(x)
1	4	2	-6	1
2	3	0	-5	2
3	2	-2	-4	3
4	1	-4	-3	4
5	0	-6	-2	5
6	-1	-8	-1	6
7	-2	-10	0	7

No3 : k = 7

x	-8	-7	-6	-5	-4	-3	-2	-1	0
g(x)	1	2	3	4	5	6	7	8	9
g'(x)	6	5	4	3	2	1	0	-1	-2

x	1	2	3	4	5	6	7	8	9
g(x)	-8	-7	-6	-5	-4	-3	-2	-1	0
g'(x)	-3	-4	-5	-6	-7	-8	-9	-10	-11

$$No04 = \left[x(t) = \frac{4t^2}{3+t^2}, P(x) = 8\sqrt{x} - 9, k = 3\right]$$

Diff03 for No.9459

$$No01 = \left[\begin{array}{cc} .1 = (f(x) = (8x+3)^5) & .2 = (f(x) = (2x^4+2x+5)^7) \\ .3 = (f(x) = \sqrt{8-3x}) & .4 = \left(f(x) = \dfrac{1}{4x^7-5}\right) \\ .5 = \left(f(x) = \dfrac{1}{(2x^2+2x+7)^6}\right) & .6 = \left(f(x) = \dfrac{1}{\sqrt{4-3x}}\right) \\ .7 = (f(x) = (8x-5)^5(5x-7)) & .8 = \left(f(x) = \dfrac{(8x-5)^5}{(5x-7)^5}\right) \end{array}\right]$$

No2 : k = 5

x	f(x)	f'(x)	g(x)	g'(x)
-6	1	16	-2	-8
-5	2	14	-3	-7
-4	3	12	-4	-6
-3	4	10	-5	-5
-2	5	8	-6	-4
-1	6	6	7	-3
0	7	4	6	-2

x	f(x)	f'(x)	g(x)	g'(x)
1	-6	2	5	-1
2	-5	0	4	0
3	-4	-2	3	1
4	-3	-4	2	2
5	-2	-6	1	3
6	-1	-8	0	4
7	0	-10	-1	5

No3 : k = 3

x	-8	-7	-6	-5	-4	-3	-2	-1	0
g(x)	5	4	3	2	1	0	-1	-2	-3
g'(x)	14	12	10	8	6	4	2	0	-2

x	1	2	3	4	5	6	7	8	9
g(x)	-4	-5	-6	-7	-8	9	8	7	6
g'(x)	-4	-6	-8	-10	-12	-14	-16	-18	-20

$$No04 = \left[x(t) = \frac{2t^2}{4+t^2}, P(x) = 8\sqrt{x} - 13, k = 8\right]$$

Diff03 for No.9476

$$No01 = \begin{bmatrix} .1 = (f(x) = (5x+3)^6) & .2 = (f(x) = (3x^3+7x+7)^7) \\ .3 = (f(x) = \sqrt{2x-5}) & .4 = \left(f(x) = \frac{1}{4x^4-7}\right) \\ .5 = \left(f(x) = \frac{1}{(4x^3-5x-5)^7}\right) & .6 = \left(f(x) = \frac{1}{\sqrt{4-5x}}\right) \\ .7 = (f(x) = (4x+3)^3(5x-3)) & .8 = \left(f(x) = \frac{(4x+3)^3}{(5x-3)^3}\right) \end{bmatrix}$$

No2 : k = 3

x	f(x)	f'(x)	g(x)	g'(x)
-6	1	8	-2	-12
-5	0	7	-1	-10
-4	-1	6	0	-8
-3	-2	5	1	-6
-2	-3	4	2	-4
-1	-4	3	3	-2
0	-5	2	4	0

x	f(x)	f'(x)	g(x)	g'(x)
1	-6	1	5	2
2	7	0	6	4
3	6	-1	7	6
4	5	-2	-6	8
5	4	-3	-5	10
6	3	-4	-4	12
7	2	-5	-3	14

No3 : k = 8

x	-8	-7	-6	-5	-4	-3	-2	-1	0
g(x)	4	3	2	1	0	-1	-2	-3	-4
g'(x)	-7	-6	-5	-4	-3	-2	-1	0	1

x	1	2	3	4	5	6	7	8	9
g(x)	-5	-6	-7	-8	9	8	7	6	5
g'(x)	2	3	4	5	6	7	8	9	10

$$No04 = \left[x(t) = \frac{7t^2}{5+t^2}, P(x) = 8\sqrt{x} - 11, k = 6 \right]$$

Diff03 for No.9491

$$No01 = \begin{bmatrix} .1 = (f(x) = (3x+4)^8) & .2 = (f(x) = (2x^4 - 5x - 5)^6) \\ .3 = (f(x) = \sqrt{5x-6}) & .4 = \left(f(x) = \frac{1}{5x^3 - 7}\right) \\ .5 = \left(f(x) = \frac{1}{(2x^3 + 2x + 3)^3}\right) & .6 = \left(f(x) = \frac{1}{\sqrt{4-3x}}\right) \\ .7 = (f(x) = (8x+7)(3x+2)^5) & .8 = \left(f(x) = \frac{(8x+7)^5}{(3x+2)^5}\right) \end{bmatrix}$$

No2 : k = 2

x	f(x)	f'(x)	g(x)	g'(x)
-6	2	5	0	-12
-5	1	4	1	-10
-4	0	3	2	-8
-3	-1	2	3	-6
-2	-2	1	4	-4
-1	-3	0	5	-2
0	-4	-1	6	0

x	f(x)	f'(x)	g(x)	g'(x)
1	-5	-2	7	2
2	-6	-3	-6	4
3	7	-4	-5	6
4	6	-5	-4	8
5	5	-6	-3	10
6	4	-7	-2	12
7	3	-8	-1	14

No3 : k = 4

x	-8	-7	-6	-5	-4	-3	-2	-1	0
g(x)	1	2	3	4	5	6	7	8	9
g'(x)	12	10	8	6	4	2	0	-2	-4

x	1	2	3	4	5	6	7	8	9
g(x)	-8	-7	-6	-5	-4	-3	-2	-1	0
g'(x)	-6	-8	-10	-12	-14	-16	-18	-20	-22

$$No04 = \left[x(t) = \frac{3t^2}{5+t^2},\ P(x) = 2\sqrt{x} - 5,\ k = 3 \right]$$

Diff03 for No.9633

$$No01 = \begin{bmatrix} .1 = \left(f(x) = (7x+2)^8\right) & .2 = \left(f(x) = (3x^3+4x+4)^6\right) \\ .3 = \left(f(x) = \sqrt{7-3x}\right) & .4 = \left(f(x) = \dfrac{1}{2x^3-5}\right) \\ .5 = \left(f(x) = \dfrac{1}{(2x^3+2x+3)^4}\right) & .6 = \left(f(x) = \dfrac{1}{\sqrt{8-7x}}\right) \\ .7 = \left(f(x) = (7x+6)(3x+8)^5\right) & .8 = \left(f(x) = \dfrac{(7x+6)^5}{(3x+8)^5}\right) \end{bmatrix}$$

No2 : k = 6

x	f(x)	f'(x)	g(x)	g'(x)
-6	2	-8	4	4
-5	1	-6	5	3
-4	0	-4	6	2
-3	-1	-2	7	1
-2	-2	0	-6	0
-1	-3	2	-5	-1
0	-4	4	-4	-2

x	f(x)	f'(x)	g(x)	g'(x)
1	-5	6	-3	-3
2	-6	8	-2	-4
3	7	10	-1	-5
4	6	12	0	-6
5	5	14	1	-7
6	4	16	2	-8
7	3	18	3	-9

No3 : k = 2

x	-8	-7	-6	-5	-4	-3	-2	-1	0
g(x)	0	1	2	3	4	5	6	7	8
g'(x)	5	4	3	2	1	0	-1	-2	-3

x	1	2	3	4	5	6	7	8	9
g(x)	9	-8	-7	-6	-5	-4	-3	-2	-1
g'(x)	-4	-5	-6	-7	-8	-9	-10	-11	-12

$$No04 = \left[x(t) = \frac{3t^2}{5+t^2}, P(x) = 4\sqrt{x} - 13, k = 3 \right]$$

Diff03 for No.9711

$$No01 = \left[\begin{array}{ll} .1 = (f(x) = (2x+7)^{10}) & .2 = (f(x) = (2x^4 - 5x + 5)^4) \\ .3 = (f(x) = \sqrt{6 - 7x}) & .4 = \left(f(x) = \frac{1}{5x^4 - 8}\right) \\ .5 = \left(f(x) = \frac{1}{(4x^2 - 7x + 7)^6}\right) & .6 = \left(f(x) = \frac{1}{\sqrt{8x - 3}}\right) \\ .7 = (f(x) = (8x-3)^4 (5x-8)) & .8 = \left(f(x) = \frac{(8x-3)^4}{(5x-8)^4}\right) \end{array}\right]$$

No2 : k = 4

x	f(x)	f'(x)	g(x)	g'(x)
-6	3	-16	-3	8
-5	2	-14	-2	7
-4	1	-12	-1	6
-3	0	-10	0	5
-2	-1	-8	1	4
-1	-2	-6	2	3
0	-3	-4	3	2

x	f(x)	f'(x)	g(x)	g'(x)
1	-4	-2	4	1
2	-5	0	5	0
3	-6	2	6	-1
4	7	4	7	-2
5	6	6	-6	-3
6	5	8	-5	-4
7	4	10	-4	-5

No3 : k = 5

x	-8	-7	-6	-5	-4	-3	-2	-1	0
g(x)	1	2	3	4	5	6	7	8	9
g'(x)	-14	-12	-10	-8	-6	-4	-2	0	2

x	1	2	3	4	5	6	7	8	9
g(x)	-8	-7	-6	-5	-4	-3	-2	-1	0
g'(x)	4	6	8	10	12	14	16	18	20

$$No04 = \left[x(t) = \frac{2t^2}{1+t^2}, P(x) = 8\sqrt{x} - 3, k = 4\right]$$

Diff03 for No.9784

$$No01 = \begin{bmatrix} .1 = (f(x) = (4x-5)^{11}) & .2 = (f(x) = (2x^2+2x+11)^7) \\ .3 = (f(x) = \sqrt{5x-2}) & .4 = \left(f(x) = \frac{1}{3x^3-5}\right) \\ .5 = \left(f(x) = \frac{1}{(2x^3+2x+3)^7}\right) & .6 = \left(f(x) = \frac{1}{\sqrt{2x-7}}\right) \\ .7 = (f(x) = (7x+2)^4(2x+3)) & .8 = \left(f(x) = \frac{(7x+2)^4}{(2x+3)^4}\right) \end{bmatrix}$$

No2 : k = 5

x	f(x)	f'(x)	g(x)	g'(x)
-6	-3	-5	-1	14
-5	-2	-4	-2	12
-4	-1	-3	-3	10
-3	0	-2	-4	8
-2	1	-1	-5	6
-1	2	0	-6	4
0	3	1	7	2

x	f(x)	f'(x)	g(x)	g'(x)
1	4	2	6	0
2	5	3	5	-2
3	6	4	4	-4
4	7	5	3	-6
5	-6	6	2	-8
6	-5	7	1	-10
7	-4	8	0	-12

No3 : k = 4

x	-8	-7	-6	-5	-4	-3	-2	-1	0
g(x)	-2	-1	0	1	2	3	4	5	6
g'(x)	16	14	12	10	8	6	4	2	0

x	1	2	3	4	5	6	7	8	9
g(x)	7	8	9	-8	-7	-6	-5	-4	-3
g'(x)	-2	-4	-6	-8	-10	-12	-14	-16	-18

$$No04 = \left[x(t) = \frac{3t^2}{4+t^2}, P(x) = 6\sqrt{x} - 11, k = 5 \right]$$

Diff03 for No.10143

$$No01 = \begin{bmatrix} .1 = (f(x) = (3x+7)^6) & .2 = (f(x) = (3x^2-8x+8)^7) \\ .3 = (f(x) = \sqrt{6x-7}) & .4 = \left(f(x) = \frac{1}{2x^5+3}\right) \\ .5 = \left(f(x) = \frac{1}{(2x^4+2x+5)^5}\right) & .6 = \left(f(x) = \frac{1}{\sqrt{5x-3}}\right) \\ .7 = (f(x) = (2x-3)^3(7x-4)) & .8 = \left(f(x) = \frac{(2x-3)^3}{(7x-4)^3}\right) \end{bmatrix}$$

No2 : k = 6

x	f(x)	f'(x)	g(x)	g'(x)
-6	0	-12	-3	7
-5	-1	-10	-2	6
-4	-2	-8	-1	5
-3	-3	-6	0	4
-2	-4	-4	1	3
-1	-5	-2	2	2
0	-6	0	3	1

x	f(x)	f'(x)	g(x)	g'(x)
1	7	2	4	0
2	6	4	5	-1
3	5	6	6	-2
4	4	8	7	-3
5	3	10	-6	-4
6	2	12	-5	-5
7	1	14	-4	-6

No3 : k = 3

x	-8	-7	-6	-5	-4	-3	-2	-1	0
g(x)	3	2	1	0	-1	-2	-3	-4	-5
g'(x)	-10	-8	-6	-4	-2	0	2	4	6

x	1	2	3	4	5	6	7	8	9
g(x)	-6	-7	-8	9	8	7	6	5	4
g'(x)	8	10	12	14	16	18	20	22	24

$$No04 = \left[x(t) = \frac{5t^2}{2+t^2}, P(x) = 2\sqrt{x} - 15, k = 3 \right]$$

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