k: 1
24*x^3 + 32*x

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k: 2
1128*x^6 + 1472*x^4 + 640*x^2

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k: 3
59712*x^9 + 695552/9*x^7 + 392192/9*x^5 + 94208/9*x^3

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k: 4
3331176*x^12 + 12878464/3*x^10 + 24160000/9*x^8 +
8501248/9*x^6 + 1386496/9*x^4

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k: 5
191434944*x^15 + 18453092096/75*x^13 +
7321081856/45*x^11 + 5078376448/75*x^9 +
259801088/15*x^7 + 479264768/225*x^5

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k: 6
11213572800*x^18 + 3236891305472/225*x^16 +
19948323410944/2025*x^14 + 9135915352064/2025*x^12 +
960724189184/675*x^10 + 580751065088/2025*x^8 +
57276104704/2025*x^6

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k: 7
665672363520*x^21 + 3134385982195712/3675*x^19 +
403773323091968/675*x^17 + 4131808915521536/14175*x^15
+ 10327927557849088/99225*x^13 +
17979607089152/675*x^11 + 628921603194888/14175*x^9 +
7246893285376/19845*x^7

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k: 8
39907278509160*x^24 + 187722112034860288/3675*x^22 +
1205789835126911488/33075*x^20 +

$$263020485348847616/14175*x^{18} +$$
$$713888871490777088/99225*x^{16} +$$
$$211178520811470848/99225*x^{14} +$$
$$6521950245093376/14175*x^{12} +$$
$$6489531627864064/99225*x^{10} + 458274036514816/99225*x^{8}$$