

1. $x^{15} - 10x^{12} + 40x^9 - 80x^6 + 80x^3 - 32$

2. 1215

3. $64x^6 - 576x^5 + 2160x^4 - 4320x^3 + 4860x^2 - 2916x + 729$

4. $x^{10} + 10x^8 + 40x^6 + 80x^4 + 80x^2 + 32$

5. $\frac{1}{x^{17}} + \frac{17}{x^{16}} + \frac{136}{x^{15}} + \dots$

6. $1048576 - 5242880x + 12451840x^2 - \dots$

7. 2016

8. 16128