

Answers:

1.  $-2 + 12x^2 - 30x^4$

2.  $3x^2 + 12x + 12$

3.  $-\frac{6}{x^3} - \frac{2}{x^2}$

4.  $\frac{1}{3x^{2/3}} - \frac{2}{3x^{5/3}}$

5.  $\frac{3\sqrt{x}}{2} - \frac{3}{2x^{5/2}}$