

1.  $\int (x^2 + 5)(x^4 + 6)dx =$
2.  $\int (x^2 - 3x + 1)^2 dx =$
3.  $\int (x\sqrt{x} + 7x^{-2} + 3)dx =$
4.  $\int \frac{4x^4 + 6x^2 - 7x + 1}{x^3} dx =$
5.  $\int \frac{x^2 e^{3x} + 7}{x^2} dx =$
6.  $\int \frac{e^{4x} + 7e^{2x}}{e^x} dx =$
7.  $\int \frac{e^{5x} + 2xe^{2x}}{e^{2x}} dx =$
8.  $\int \left( \frac{3}{x^4} - \frac{1}{2x^2} + 7 \right) dx =$
9.  $\int \left( \frac{1}{3x} - \frac{2}{\sqrt{x}} - \frac{1}{3x^6} \right) dx =$
10.  $\int \left( \sqrt[4]{x^5} + \frac{1}{\sqrt[3]{x^2}} \right) dx =$
6.  $\int (e^{4x} + 7e^{2x}) * e^{-x} dx =$   
 $= \int (e^{3x} + 7e^x) dx = \frac{1}{3}e^{3x} + 7e^x + C$
7.  $\int (e^{5x} + 2xe^{2x}) * e^{-2x} dx =$   
 $= \int (e^{3x} + 2x) dx = \frac{1}{3}e^{3x} + x^2 + C$
8.  $\int \left( 3x^{-4} - \frac{1}{2}x^{-2} + 7 \right) dx =$   
 $= -x^{-3} + \frac{1}{2}x^{-1} + 7x + C$
9.  $\int \left( \frac{1}{3}x^{-1} - 2x^{-1/2} - \frac{1}{3}x^{-6} \right) dx =$   
 $= \frac{1}{3} \ln|x| - 4x^{1/2} + \frac{1}{15}x^{-5} + C$
10.  $\int \left( x^{5/4} + x^{-2/3} \right) dx =$   
 $\frac{4x^{9/4}}{9} + 3x^{1/3} + C$

## Solutions

1.  $\int (x^6 + 5x^4 + 6x^2 + 30)dx =$   
 $= \frac{x^7}{7} + x^5 + 2x^3 + 30x + C$
2.  $\int (x^4 - 6x^3 + 11x^2 - 6x + 1)dx =$   
 $= \frac{x^5}{5} - \frac{6x^4}{4} + \frac{11x^3}{3} - 3x^2 + x + C$
3.  $\int (x^{1.5} + 7x^{-2} + 3)dx = \frac{x^{2.5}}{2.5} + \frac{7x^{-1}}{-1} + 3x + C$
4.  $\int (4x^4 + 6x^2 - 7x + 1) * x^{-3} dx =$   
 $= \int (4x + 6x^{-1} - 7x^{-2} + x^{-3}) dx =$   
 $= 2x^2 + 6 \ln|x| + 7x^{-1} + \frac{x^{-2}}{-2} + C$
5.  $\int (x^2 e^{3x} + 7) * x^{-2} dx =$   
 $= \int (e^{3x} + 7x^{-2}) dx = \frac{1}{3}e^{3x} - 7x^{-1} + C$