Find the integrals of the following functions:

1. $\int (6x^2 - 4x + 3)\, dx$

2. $\int (4x^3 - 7x^2 + 3x - 5)\, dx$

3. $\int (2x^4 + 3x^3 - 5x^2 - 2x + 1)\, dx$

4. $\int (2x^4 + 6x^3 + 7x^2 - 4x + 1)\, dx$

5. $\int (5x^2 - 7x + 6)\, dx$

6. $\int (6x^3 - 6x^2 + 8x - 2)\, dx$

7. $\int (3x^{-2} + 4x^{-3} + 6)\, dx$

8. $\int (5x^{3/2} + 2x^{1/2} - 7x + 3)\, dx$

9. $\int (7x^{-3} + 3x^{-1/2} - 5x^{-3/2} - 6)\, dx$

10. $\int (3x^{-1} + 4e^{2x} + 5x - 6)\, dx$

Answers:

1. $2x^3 - 2x^2 + 3x + C$

2. $x^4 - \frac{7}{3}x^3 + \frac{3}{2}x^2 - 5x + C$

3. $\frac{2}{5}x^5 + \frac{3}{4}x^4 - \frac{5}{3}x^3 - x^2 + x + C$

4. $\frac{2}{5}x^5 + \frac{3}{2}x^4 + \frac{7}{3}x^3 - 2x^2 + x + C$

5. $\frac{5}{3}x^3 - \frac{7}{2}x^2 + 6x + C$

6. $\frac{3}{2}x^4 - 2x^3 + 4x^2 - 2x + C$

7. $-3x^{-1} - 2x^{-2} + 6x + C$

8. $2x^{5/2} + \frac{4}{3}x^{3/2} - \frac{7}{2}x^2 + 3x + C$

9. $-\frac{7}{2}x^{-2} + 6x^{1/2} + 10x^{-1/2} - 6x + C$

10. $3\ln|x| + 2e^{2x} + \frac{5}{2}x^2 - 6x + C$