

I.A. 1. $\int x^2 dx = \frac{x^3}{3} + C$

2. $\int 3x^3 + 7x dx = \frac{3}{4}x^4 + \frac{7}{2}x^2 + C$

3. $\int 3x^2 + 7x - 3 dx = x^3 + \frac{7}{2}x^2 - 3x + C$

4. $\int \frac{x^3 - x^2}{x} dx = \int x^2 - x dx = \frac{1}{3}x^3 - \frac{1}{2}x^2 + C$

5. $\int x^{3/2} = \frac{2}{5}x^{5/2} + C$

6. $\int \frac{4 + 5x^{3/2}}{\sqrt{x}} dx = \int 4x^{-1/2} + 5x^{2/2} dx = \frac{2}{1}(4)x^{1/2} + \frac{5}{2}x^2 + C$
 $= 8\sqrt{x} + \frac{5}{2}x^2 + C$

7. $5 \int \sec x \tan x dx = 5 \sec x + C$

8. $\int 3 \csc x \cot x dx = -3 \csc x + C$

