

## Integration by Parts Concept **Answers**

$$1. \quad \frac{x(x-3)^6}{6} - \frac{(x-3)^7}{42}$$

$$2. \quad \frac{x(2x-3)^6}{12} - \frac{(2x-3)^7}{168}$$

$$3. \quad \frac{-x(3-x)^6}{6} - \frac{(3-x)^7}{42}$$

$$4. \quad \frac{x^2(x-3)^6}{6} - \frac{x(x-3)^7}{21} + \frac{(x-3)^8}{168}$$

$$5. \quad \frac{-x^3(3-2x)^6}{12} - \frac{x^2(3-2x)^7}{56} - \frac{x(3-2x)^8}{448} - \frac{(3-2x)^9}{8064}$$

## Integration by Parts Concept Questions

1.  $\int x(x-3)^5 dx$

2.  $\int x(2x-3)^5 dx$

3.  $\int x(3-x)^5 dx$

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

5.  $\int x^3(3-2x)^5 dx$

6.  $\int \ln x dx$