

$$\int \cos^2 x \, dx = \frac{1}{2} \sin x \cos x + \frac{1}{2} x$$

$$\int \sin^2 x \, dx = -\frac{1}{2} \sin x \cos x + \frac{1}{2} x$$

$$\int \sin x \cos x \, dx = \frac{1}{2} \sin^2 x$$

$$\int \cos^2 x \sin x \, dx = -\frac{\cos^3 x}{3}$$

$$\int \sin^2 x \cos x \, dx = \frac{\sin x}{3}$$

$$\int x \sin^2 x \, dx = \frac{x^2}{4} - \frac{x \sin 2x}{4} - \frac{\cos 2x}{8}$$

$$\int x^2 \sin^2 x \, dx = \frac{x^3}{6} - \left(\frac{x^2}{4} - \frac{1}{8}\right) \sin 2x - \frac{x \cos 2x}{4}$$

$$\int \cos^3 x \, dx = \frac{1}{3} \sin x (\cos^2 x + 2)$$

$$\int \sin^3 x \, dx = -\frac{1}{3} \cos x (\sin^2 x + 2)$$

$$\int \sin^3 x \cos^2 x \, dx = \frac{\cos x \sin^4 x}{5} + \frac{1}{5} \int \sin^3 x \, dx$$

$$\int \cos ax \sin ax \, dx = \frac{1}{2a} \sin^2(ax)$$

$$\int \cos nx \cos mx \, dx = \frac{\sin(n-m)x}{2(n-m)} + \frac{\sin(n+m)x}{2(n+m)}$$

$$\int \sin nx \sin mx \, dx = \frac{\sin(n-m)x}{2(n-m)} - \frac{\sin(n+m)x}{2(n+m)}$$

$$\int \sin nx \cos mx \, dx = -\frac{\cos(n-m)x}{2(n-m)} - \frac{\cos(n+m)x}{2(n+m)}$$

$$\int_0^{\pi/2} \cos^2 x \, dx = \pi/4 \quad \int_0^{n\pi} \cos^2 x \, dx = n\pi/2$$

$$\int_0^{\pi/2} \sin^2 x \, dx = \pi/4 \quad \int_0^{n\pi} \sin^2 x \, dx = n\pi/2$$

$$\int_0^{n\pi} \sin x \cos x \, dx = 0$$

$$\int_0^{\pi} \cos^2 x \sin x \, dx = 2/3$$

$$\int_0^{\pi} \sin^2 x \cos x \, dx = 0$$

$$\int_0^{n\pi} x \sin^2 x \, dx = n^2 \pi^2 / 4$$

$$\int_0^{n\pi} x^2 \sin^2(x) \, dx = \frac{n^3 \pi^3}{6} - \frac{n\pi}{4}$$

$$\int_0^{\pi/2} \cos^3 x \, dx = 2/3 \quad \int_0^{n\pi} \cos^3 x \, dx = 0$$

$$\int_0^{\pi/2} \sin^3 x \, dx = 2/3 \quad \int_0^{\pi} \sin^3 x \, dx = 4/3$$

$$\int_0^{\pi} \sin^3 x \cos^2 x \, dx = 4/15$$

$$\int_0^{\pi/n} \cos nx \sin nx \, dx = \int_0^{\pi} \cos nx \sin nx \, dx = 0$$

$$\int_0^{\pi} \sin nx \sin mx \, dx = 0 \quad (n^2 \neq m^2)$$

$$\int_0^{\pi} \cos nx \cos mx \, dx = 0 \quad (n^2 \neq m^2)$$

$$\int_0^{\pi} \sin nx \cos mx \, dx = \frac{2n}{n^2 - m^2}$$

if n-m is odd, or zero if n-m is even

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IA	IIA	IIIB	IVB	VB	VIB	VIIIB	---	VIII	---	IB	IIB	IIIA	IVA	VA	VIA	VIIA	VIIIA
1 H 1.008																	2 He 4.003
3 Li 6.941	4 Be 9.012											5 B 10.81	6 C 12.01	7 N 14.01	8 O 16.00	9 F 19.00	10 Ne 20.18
11 Na 22.99	12 Mg 24.31											13 Al 26.98	14 Si 28.09	15 P 30.97	16 S 32.07	17 Cl 35.45	18 Ar 39.95
19 K 39.10	20 Ca 40.08	21 Sc 44.96	22 Ti 47.88	23 V 50.94	24 Cr 52.00	25 Mn 54.94	26 Fe 55.85	27 Co 58.47	28 Ni 58.69	29 Cu 63.55	30 Zn 65.39	31 Ga 69.72	32 Ge 72.59	33 As 74.92	34 Se 78.96	35 Br 79.90	36 Kr 83.80
37 Rb 85.47	38 Sr 87.62	39 Y 88.91	40 Zr 91.22	41 Nb 92.91	42 Mo 95.94	43 Tc (98)	44 Ru 101.1	45 Rh 102.9	46 Pd 106.4	47 Ag 107.9	48 Cd 112.4	49 In 114.8	50 Sn 118.7	51 Sb 121.8	52 Te 127.6	53 I 126.9	54 Xe 131.3
55 Cs 132.9	56 Ba 137.3	57 La* 138.9	72 Hf 178.5	73 Ta 180.9	74 W 183.9	75 Re 186.2	76 Os 190.2	77 Ir 190.2	78 Pt 195.1	79 Au 197.0	80 Hg 200.5	81 Tl 204.4	82 Pb 207.2	83 Bi 209.0	84 Po (210)	85 At (210)	86 Rn (222)