

## Errors

In the table below the errors found in Part A up until now,  
as well as the changes that should be made, are given.

page 43	In Fig. 5-19, $r = OP$ and $\theta = \widehat{xOP}$
page 46	In Fig. 5-35a and 5-35b, $\varphi$ is the angle by which the circle has turned (the length of the corresponding arc is equal to the distance of the point of contact of the circle to the origin $O$ ).
page 65	Line 12 from below: Replace “ses See 2.6” by “see Sec. 2.6”.
page 82	Line 5 from above: $\int \frac{x^2 dx}{(x^2 - a^2)^{3/2}} = -\frac{x}{\sqrt{x^2 - a^2}} + \ln x + \sqrt{x^2 - a^2} $
page 85	Line 4 from above: $\int x^{n+1}(a^2 - x^2)^{3/2} dx = -\frac{x^n(a^2 - x^2)^{5/2}}{n+5} + \frac{na^2}{n+5} \int x^{n-1}(a^2 - x^2)^{3/2} dx$
page 99	Line 1 from below: $\int \cos ax \cos bx \cos cx dx = \frac{1}{4} \left[ \frac{\sin(a+b+c)x}{a+b+c} + \frac{\sin(b+c-a)x}{b+c-a} + \frac{\sin(a+c-b)x}{a+c-b} + \frac{\sin(a+b-c)x}{a+b-c} \right]$
page 121	Line 3 from above: $\int \frac{dx}{(b+c \cosh ax)^2} = \frac{-c \sinh ax}{a(b^2 - c^2)(b+c \cosh ax)} + \frac{b}{b^2 - c^2} \int \frac{dx}{b+c \cosh ax}$
page 127	Line 11 from above: $\int_a^b f(x) dx = \int_a^b \frac{d}{dx} g(x) dx = g(x) \Big _a^b = g(b) - g(a)$
page 134	Line 3 from below: $\int_0^\infty \frac{\tan mx}{x} dx = \operatorname{sgn}(m) \frac{\pi}{2} = \begin{cases} \pi/2, & m > 0 \\ 0, & m = 0 \\ -\pi/2, & m < 0 \end{cases}$ ③
page 155	Line 7 from above: $\frac{1}{1^6} + \frac{1}{3^6} + \frac{1}{5^6} + \frac{1}{7^6} + \dots = \sum_{k=0}^\infty \frac{1}{(2k+1)^6} = \frac{\pi^6}{960}$
page 164	Line 6 from above: $\tanh^{-1} x = x + \frac{x^3}{3} + \frac{x^5}{5} + \frac{x^7}{7} + \dots = \sum_{k=0}^\infty \frac{x^{2k+1}}{2k+1}, \quad  x  < 1$
page 219	Line 3 from below: $\sum_{n=0}^\infty \sum_{m=-n}^n Y_n^m * (\theta', \varphi') Y_n^m(\theta, \varphi) = \delta(\varphi - \varphi') \delta(\cos \theta - \cos \theta')$
page 239	Line 8 from below: $\zeta(x) = \frac{1}{(1-2^{1-x})\Gamma(x)} \int_0^\infty \frac{t^{x-1}}{e^t + 1} dt, \quad x > 0$
page 243	Line 7 from below: The powers of $k$ inside the brackets are $k^2$ , $k^4$ and $k^6$ .
page 252	Line 4 from above: $F(\omega) = i\sqrt{\frac{\pi}{2}} \operatorname{sgn}(\omega)$
page 261	Line 2 from above: $F_c(\omega) = \frac{1}{2} \sqrt{\frac{\pi}{2}} [1 + \operatorname{sgn}(a - \omega)]$
page 268	Line 10 from above: $n = 3 \quad \cos at - \frac{1}{2} at \sin at$
page 269	Line 3 from above in the left column: $\frac{s^n}{s^3 + a^3}$
page 295	Line 5 from above: $\int_{-\infty}^\infty (x - \mu)^r f(x) dx$ for continuous $X$
page 305	Line 2 from below: two-sided: $x_{F,1-a/2} \hat{s}_1^2 / \hat{s}_2^2 \leq \sigma_1^2 / \sigma_2^2 \leq x_{F,a/2} \hat{s}_1^2 / \hat{s}_2^2$ (see also Ad3057)
page 306	Line 4 from below: ④ $x_{F,c}$ is the critical value for $F$ distribution with $n_1 - 1, n_2 - 1$ d.o.f.
page 308	Line 14 from above: $y - \bar{y} = \frac{s_{xy}}{s_x^2} (x - \bar{x})$ or $\frac{y - \bar{y}}{s_y} = r \frac{x - \bar{x}}{s_x}$ , since $b_1 = \frac{s_{xy}}{s_x^2}$
page 316	Line 6 from above: 1 pc $\approx 30857 \times 10^{12}$