47. $\displaystyle\int \frac{\sqrt{a+bx}}{x}\,dx = 2\sqrt{a+bx} + a\int \frac{1}{x\sqrt{a+bx}}\,dx$

48. $\displaystyle\int \frac{x}{\sqrt{a+bx}}\,dx = \frac{2(bx-2a)\sqrt{a+bx}}{3b^2}$

49. $\displaystyle\int \frac{1}{x\sqrt{a+bx}}\,dx = \begin{cases} \dfrac{1}{\sqrt{a}}\log\left|\dfrac{\sqrt{a+bx}-\sqrt{a}}{\sqrt{a+bx}+\sqrt{a}}\right| & (a>0) \\[3mm] \dfrac{2}{\sqrt{-a}}\arctan\left|\sqrt{\dfrac{a+bx}{-a}}\right| & (a<0) \end{cases}$

50. $\displaystyle\int \frac{\sqrt{a^2-x^2}}{x}\,dx = \sqrt{a^2-x^2} - a\log\left|\frac{a+\sqrt{a^2-x^2}}{x}\right|$

51. $\displaystyle\int x\sqrt{a^2-x^2}\,dx = -\frac{1}{3}(a^2-x^2)^{3/2}$

52. $\displaystyle\int x^2\sqrt{a^2-x^2}\,dx = \frac{x}{8}(2x^2-a^2)\sqrt{a^2-x^2} + \frac{a^4}{8}\,\text{arc sen}\,\frac{x}{a} \quad (a>0)$

53. $\displaystyle\int \frac{1}{x\sqrt{a^2-x^2}}\,dx = -\frac{1}{a}\log\left|\frac{a+\sqrt{a^2-x^2}}{x}\right|$

54. $\displaystyle\int \frac{x}{\sqrt{a^2-x^2}}\,dx = -\sqrt{a^2-x^2}$

55. $\displaystyle\int \frac{x^2}{\sqrt{a^2-x^2}}\,dx = -\frac{x}{2}\sqrt{a^2-x^2} + \frac{a^2}{2}\,\text{arc sen}\,\frac{x}{a} \quad (a>0)$

56. $\displaystyle\int \frac{\sqrt{x^2+a^2}}{x}\,dx = \sqrt{x^2+a^2} - a\log\left|\frac{a+\sqrt{x^2+a^2}}{x}\right|$

57. $\displaystyle\int \frac{\sqrt{x^2-a^2}}{x}\,dx = \sqrt{x^2-a^2} - a\,\text{arc cos}\,\frac{a}{|x|} \quad (a>0)$

58. $\displaystyle\int \frac{x^2}{\sqrt{x^2+a^2}}\,dx = \frac{x\sqrt{x^2+a^2}}{2} - \frac{a^2}{2}\log\left(x+\sqrt{x^2+a^2}\right)$

59. $\displaystyle\int \frac{1}{x\sqrt{x^2+a^2}}\,dx = \frac{1}{a}\log\left|\frac{x}{a+\sqrt{x^2+a^2}}\right|$

60. $\displaystyle\int \frac{1}{x\sqrt{x^2-a^2}}\,dx = \frac{1}{a}\,\text{arc cos}\,\frac{a}{|x|} \quad (a>0)$

61. $\displaystyle\int \frac{1}{x^2\sqrt{x^2\pm a^2}}\,dx = \mp\frac{\sqrt{x^2\pm a^2}}{a^2 x}$

62. $\displaystyle\int \frac{1}{\sqrt{x^2\pm a^2}}\,dx = \ln\left|\frac{1}{a}\sqrt{x^2\pm a^2} + \frac{x}{a}\right|$

63. $\displaystyle\int \frac{1}{ax^2+bx+c}\,dx = \begin{cases} \dfrac{1}{\sqrt{b^2-4ac}}\log\left|\dfrac{2ax+b-\sqrt{b^2-4ac}}{2ax+b+\sqrt{b^2-4ac}}\right| & (b^2>4ac) \\[3mm] \dfrac{2}{\sqrt{4ac-b^2}}\arctan\dfrac{2ax+b}{\sqrt{4ac-b^2}} & (b^2<4ac) \end{cases}$

64. $\displaystyle\int \frac{x}{ax^2+bx+c}\,dx = \frac{1}{2a}\log|ax^2+bx+c| - \frac{b}{2a}\int \frac{1}{ax^2+bx+c}\,dx$

65. $\displaystyle\int \frac{1}{\sqrt{ax^2+bx+c}}\,dx = \begin{cases} \dfrac{1}{\sqrt{a}}\log\left|2ax+b+2\sqrt{a}\sqrt{ax^2+bx+c}\right| & (a>0) \\[3mm] \dfrac{1}{\sqrt{-a}}\,\text{arc sen}\,\dfrac{-2ax-b}{\sqrt{b^2-4ac}} & (a<0) \end{cases}$