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4.  $ax^4 + bx^2 + c = 0 \quad (a \neq 0).$

**Biquadratic equation.**

1°. The substitution  $y = x^2$  leads to a quadratic equation:  $ay^2 + by + c = 0.$

2°. Solutions:

$$x_{1,2} = \pm \sqrt{\frac{-b + \sqrt{b^2 - 4ac}}{2a}}, \quad x_{3,4} = \pm \sqrt{\frac{-b - \sqrt{b^2 - 4ac}}{2a}}.$$

### References

**Mishina, A. P. and Proskuryakov, I. V.,** *Higher Algebra*, Pergamon Press, New York, 1965.

**Bronshstein, I.N. and Semendyayev, K.A.,** *Handbook of Mathematics, 4th Edition*, Springer-Verlag, Berlin, 2004.

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