

二次方程式＜ $ax^2 - b = 0$ パターン＞

No.1の解答

1. 次の二次方程式を解きなさい。

(1) $2x^2 - 312 = 0$

答. $x = 2\sqrt{39}, -2\sqrt{39}$

(2) $x^2 - 81 = 0$

答. $x = 9, -9$

(3) $4x^2 - 676 = 0$

答. $x = 13, -13$

(4) $4x^2 + 6 = 262$

答. $x = 8, -8$

(5) $x^2 - 23 = -15$

答. $x = 2\sqrt{2}, -2\sqrt{2}$

(6) $x^2 + 23 = 198$

答. $x = 5\sqrt{7}, -5\sqrt{7}$

(7) $x^2 - 29 = 123$

答. $x = 2\sqrt{38}, -2\sqrt{38}$

(8) $2x^2 - 184 = 0$

答. $x = 2\sqrt{23}, -2\sqrt{23}$

(9) $2x^2 - 136 = 0$

答. $x = 2\sqrt{17}, -2\sqrt{17}$

(10) $x^2 - 29 = 35$

答. $x = 8, -8$

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No.2の解答

1. 次の二次方程式を解きなさい。

(1) $4x^2 - 26 = 658$

答. $x = 3\sqrt{19}, -3\sqrt{19}$

(2) $3x^2 + 22 = 184$

答. $x = 3\sqrt{6}, -3\sqrt{6}$

(3) $4x^2 - 352 = 0$

答. $x = 2\sqrt{22}, -2\sqrt{22}$

(4) $3x^2 - 30 = 321$

答. $x = 3\sqrt{13}, -3\sqrt{13}$

(5) $x^2 - 29 = 123$

答. $x = 2\sqrt{38}, -2\sqrt{38}$

(6) $3x^2 - 564 = 0$

答. $x = 2\sqrt{47}, -2\sqrt{47}$

(7) $2x^2 + 1 = 161$

答. $x = 4\sqrt{5}, -4\sqrt{5}$

(8) $4x^2 - 736 = 0$

答. $x = 2\sqrt{46}, -2\sqrt{46}$

(9) $3x^2 - 294 = 0$

答. $x = 7\sqrt{2}, -7\sqrt{2}$

(10) $4x^2 + 12 = 208$

答. $x = 7, -7$

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No.3の解答

1. 次の二次方程式を解きなさい。

(1) $5x^2 - 160 = 0$

答. $x = 4\sqrt{2}, -4\sqrt{2}$

(2) $3x^2 + 13 = 445$

答. $x = 12, -12$

(3) $2x^2 - 48 = 0$

答. $x = 2\sqrt{6}, -2\sqrt{6}$

(4) $4x^2 - 448 = 0$

答. $x = 4\sqrt{7}, -4\sqrt{7}$

(5) $5x^2 - 300 = 0$

答. $x = 2\sqrt{15}, -2\sqrt{15}$

(6) $3x^2 + 29 = 164$

答. $x = 3\sqrt{5}, -3\sqrt{5}$

(7) $x^2 + 3 = 101$

答. $x = 7\sqrt{2}, -7\sqrt{2}$

(8) $3x^2 + 22 = 184$

答. $x = 3\sqrt{6}, -3\sqrt{6}$

(9) $3x^2 - 23 = 220$

答. $x = 9, -9$

(10) $x^2 + 1 = 137$

答. $x = 2\sqrt{34}, -2\sqrt{34}$

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No.4の解答

1. 次の二次方程式を解きなさい。

(1) $x^2 + 1 = 137$

答. $x = 2\sqrt{34}, -2\sqrt{34}$

(2) $5x^2 - 225 = 0$

答. $x = 3\sqrt{5}, -3\sqrt{5}$

(3) $2x^2 - 242 = 0$

答. $x = 11, -11$

(4) $4x^2 - 2 = 158$

答. $x = 2\sqrt{10}, -2\sqrt{10}$

(5) $x^2 - 23 = -15$

答. $x = 2\sqrt{2}, -2\sqrt{2}$

(6) $2x^2 - 136 = 0$

答. $x = 2\sqrt{17}, -2\sqrt{17}$

(7) $3x^2 + 13 = 445$

答. $x = 12, -12$

(8) $3x^2 - 3 = 345$

答. $x = 2\sqrt{29}, -2\sqrt{29}$

(9) $4x^2 + 11 = 395$

答. $x = 4\sqrt{6}, -4\sqrt{6}$

(10) $3x^2 - 10 = 233$

答. $x = 9, -9$

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No.5の解答

1. 次の二次方程式を解きなさい。

(1) $4x^2 + 21 = 597$

答. $x = 12, -12$

(2) $5x^2 - 940 = 0$

答. $x = 2\sqrt{47}, -2\sqrt{47}$

(3) $4x^2 + 28 = 784$

答. $x = 3\sqrt{21}, -3\sqrt{21}$

(4) $5x^2 + 25 = 345$

答. $x = 8, -8$

(5) $3x^2 - 3 = 345$

答. $x = 2\sqrt{29}, -2\sqrt{29}$

(6) $5x^2 - 20 = 835$

答. $x = 3\sqrt{19}, -3\sqrt{19}$

(7) $5x^2 - 225 = 0$

答. $x = 3\sqrt{5}, -3\sqrt{5}$

(8) $3x^2 - 16 = 476$

答. $x = 2\sqrt{41}, -2\sqrt{41}$

(9) $3x^2 + 20 = 425$

答. $x = 3\sqrt{15}, -3\sqrt{15}$

(10) $x^2 - 12 = 124$

答. $x = 2\sqrt{34}, -2\sqrt{34}$