平方根＜和差・標準＞No.1 の解答

1. 次の式を簡単にせよ。

(1) $\sqrt{32} + \sqrt{8} - \sqrt{18}$

$= 4\sqrt{2} + 2\sqrt{2} - 3\sqrt{2}$

答. $3\sqrt{2}$

(2) $\sqrt{3} - \sqrt{12} - 3\sqrt{27}$

$= \sqrt{3} - 2\sqrt{3} - 9\sqrt{3}$

答. $-10\sqrt{3}$

(3) $3\sqrt{8} + \sqrt{32} + \sqrt{2}$

$= 6\sqrt{2} + 4\sqrt{2} + \sqrt{2}$

答. $11\sqrt{2}$

(4) $\sqrt{18} + \sqrt{8} + \sqrt{2}$

$= 3\sqrt{2} + 2\sqrt{2} + \sqrt{2}$

答. $6\sqrt{2}$

(5) $3\sqrt{45} + \sqrt{80} + \sqrt{5}$

$= 9\sqrt{5} + 4\sqrt{5} + \sqrt{5}$

答. $14\sqrt{5}$

(6) $\sqrt{18} + 2\sqrt{8} - \sqrt{2}$

$= 3\sqrt{2} + 4\sqrt{2} - \sqrt{2}$

答. $6\sqrt{2}$

(7) $\sqrt{27} + \sqrt{3} - \sqrt{12}$

$= 3\sqrt{3} + \sqrt{3} - 2\sqrt{3}$

答. $2\sqrt{3}$

(8) $\sqrt{5} - \sqrt{20} + \sqrt{80}$

$= \sqrt{5} - 2\sqrt{5} + 4\sqrt{5}$

答. $3\sqrt{5}$

(9) $3\sqrt{27} + \sqrt{12} + \sqrt{3}$

$= 9\sqrt{3} + 2\sqrt{3} + \sqrt{3}$

答. $12\sqrt{3}$

(10) $\sqrt{8} + \sqrt{32} - \sqrt{18}$

$= 2\sqrt{2} + 4\sqrt{2} - 3\sqrt{2}$

答. $3\sqrt{2}$

平方根＜和差・標準＞No.2 の解答

1. 次の式を簡単にせよ。

(1) $3\sqrt{32} + \sqrt{18} + \sqrt{2}$

$= 12\sqrt{2} + 3\sqrt{2} + \sqrt{2}$

答. $16\sqrt{2}$

(2) $\sqrt{2} + 3\sqrt{18} - \sqrt{32}$

$= \sqrt{2} + 9\sqrt{2} - 4\sqrt{2}$

答. $6\sqrt{2}$

(3) $3\sqrt{32} + \sqrt{18} - \sqrt{8}$

$= 12\sqrt{2} + 3\sqrt{2} - 2\sqrt{2}$

答. $13\sqrt{2}$

(4) $\sqrt{2} - \sqrt{8} - \sqrt{32}$

$= \sqrt{2} - 2\sqrt{2} - 4\sqrt{2}$

答. $-5\sqrt{2}$

(5) $\sqrt{2} - 2\sqrt{18} - \sqrt{8}$

$= \sqrt{2} - 6\sqrt{2} - 2\sqrt{2}$

答. $-7\sqrt{2}$

(6) $\sqrt{45} - \sqrt{80} - \sqrt{5}$

$= 3\sqrt{5} - 4\sqrt{5} - \sqrt{5}$

答. $-2\sqrt{5}$

(7) $\sqrt{18} + \sqrt{2} + \sqrt{8}$

$= 3\sqrt{2} + \sqrt{2} + 2\sqrt{2}$

答. $6\sqrt{2}$

(8) $\sqrt{45} - \sqrt{20} + \sqrt{5}$

$= 3\sqrt{5} - 2\sqrt{5} + \sqrt{5}$

答. $2\sqrt{5}$

(9) $\sqrt{32} + \sqrt{18} + 2\sqrt{8}$

$= 4\sqrt{2} + 3\sqrt{2} + 4\sqrt{2}$

答. $11\sqrt{2}$

(10) $\sqrt{12} - 2\sqrt{3} + \sqrt{27}$

$= 2\sqrt{3} - 2\sqrt{3} + 3\sqrt{3}$

答. $3\sqrt{3}$

平方根＜和差・標準＞No.3 の解答

1. 次の式を簡単にせよ。

(1) $2\sqrt{3} + \sqrt{48} + \sqrt{27}$

$\qquad = 2\sqrt{3} + 4\sqrt{3} + 3\sqrt{3}$

答. $9\sqrt{3}$

(2) $3\sqrt{5} - \sqrt{80} + \sqrt{45}$

$\qquad = 3\sqrt{5} - 4\sqrt{5} + 3\sqrt{5}$

答. $2\sqrt{5}$

(3) $\sqrt{8} + 2\sqrt{2} + \sqrt{18}$

$\qquad = 2\sqrt{2} + 2\sqrt{2} + 3\sqrt{2}$

答. $7\sqrt{2}$

(4) $\sqrt{5} + \sqrt{20} - \sqrt{45}$

$\qquad = \sqrt{5} + 2\sqrt{5} - 3\sqrt{5}$

答. 0

(5) $\sqrt{3} - \sqrt{48} + \sqrt{12}$

$\qquad = \sqrt{3} - 4\sqrt{3} + 2\sqrt{3}$

答. $-\sqrt{3}$

(6) $\sqrt{12} + 2\sqrt{27} - \sqrt{48}$

$\qquad = 2\sqrt{3} + 6\sqrt{3} - 4\sqrt{3}$

答. $4\sqrt{3}$

(7) $\sqrt{8} + \sqrt{2} - \sqrt{32}$

$\qquad = 2\sqrt{2} + \sqrt{2} - 4\sqrt{2}$

答. $-\sqrt{2}$

(8) $\sqrt{3} - 2\sqrt{12} - \sqrt{48}$

$\qquad = \sqrt{3} - 4\sqrt{3} - 4\sqrt{3}$

答. $-7\sqrt{3}$

(9) $\sqrt{2} - \sqrt{32} + 3\sqrt{18}$

$\qquad = \sqrt{2} - 4\sqrt{2} + 9\sqrt{2}$

答. $6\sqrt{2}$

(10) $\sqrt{48} - \sqrt{3} + 3\sqrt{27}$

$\qquad = 4\sqrt{3} - \sqrt{3} + 9\sqrt{3}$

答. $12\sqrt{3}$

平方根＜和差・標準＞No.4 の解答

1. 次の式を簡単にせよ。

(1) $\sqrt{2} - \sqrt{18} + \sqrt{8}$

$\quad = \sqrt{2} - 3\sqrt{2} + 2\sqrt{2}$

答. 0

(2) $\sqrt{80} + \sqrt{5} + 2\sqrt{45}$

$\quad = 4\sqrt{5} + \sqrt{5} + 6\sqrt{5}$

答. $11\sqrt{5}$

(3) $\sqrt{2} - \sqrt{8} - \sqrt{32}$

$\quad = \sqrt{2} - 2\sqrt{2} - 4\sqrt{2}$

答. $-5\sqrt{2}$

(4) $\sqrt{3} - \sqrt{27} - \sqrt{12}$

$\quad = \sqrt{3} - 3\sqrt{3} - 2\sqrt{3}$

答. $-4\sqrt{3}$

(5) $\sqrt{32} + \sqrt{18} + 2\sqrt{8}$

$\quad = 4\sqrt{2} + 3\sqrt{2} + 4\sqrt{2}$

答. $11\sqrt{2}$

(6) $\sqrt{8} - 2\sqrt{18} + \sqrt{2}$

$\quad = 2\sqrt{2} - 6\sqrt{2} + \sqrt{2}$

答. $-3\sqrt{2}$

(7) $3\sqrt{12} + \sqrt{3} + \sqrt{27}$

$\quad = 6\sqrt{3} + \sqrt{3} + 3\sqrt{3}$

答. $10\sqrt{3}$

(8) $\sqrt{48} + \sqrt{12} - \sqrt{27}$

$\quad = 4\sqrt{3} + 2\sqrt{3} - 3\sqrt{3}$

答. $3\sqrt{3}$

(9) $\sqrt{8} + 2\sqrt{18} - \sqrt{32}$

$\quad = 2\sqrt{2} + 6\sqrt{2} - 4\sqrt{2}$

答. $4\sqrt{2}$

(10) $\sqrt{80} + \sqrt{5} - \sqrt{20}$

$\quad = 4\sqrt{5} + \sqrt{5} - 2\sqrt{5}$

答. $3\sqrt{5}$

平方根＜和差・標準＞No.5 の解答

1. 次の式を簡単にせよ。

(1) $2\sqrt{2} + \sqrt{32} - \sqrt{8}$

$\quad = 2\sqrt{2} + 4\sqrt{2} - 2\sqrt{2}$

答. $4\sqrt{2}$

(2) $\sqrt{45} + 2\sqrt{5} + \sqrt{80}$

$\quad = 3\sqrt{5} + 2\sqrt{5} + 4\sqrt{5}$

答. $9\sqrt{5}$

(3) $3\sqrt{12} - \sqrt{48} - \sqrt{27}$

$\quad = 6\sqrt{3} - 4\sqrt{3} - 3\sqrt{3}$

答. $-\sqrt{3}$

(4) $3\sqrt{3} + \sqrt{48} + \sqrt{12}$

$\quad = 3\sqrt{3} + 4\sqrt{3} + 2\sqrt{3}$

答. $9\sqrt{3}$

(5) $2\sqrt{48} - \sqrt{12} + \sqrt{3}$

$\quad = 8\sqrt{3} - 2\sqrt{3} + \sqrt{3}$

答. $7\sqrt{3}$

(6) $\sqrt{48} + \sqrt{12} - \sqrt{27}$

$\quad = 4\sqrt{3} + 2\sqrt{3} - 3\sqrt{3}$

答. $3\sqrt{3}$

(7) $\sqrt{27} - \sqrt{12} + \sqrt{3}$

$\quad = 3\sqrt{3} - 2\sqrt{3} + \sqrt{3}$

答. $2\sqrt{3}$

(8) $\sqrt{27} - \sqrt{3} + 2\sqrt{48}$

$\quad = 3\sqrt{3} - \sqrt{3} + 8\sqrt{3}$

答. $10\sqrt{3}$

(9) $\sqrt{48} + \sqrt{27} - \sqrt{12}$

$\quad = 4\sqrt{3} + 3\sqrt{3} - 2\sqrt{3}$

答. $5\sqrt{3}$

(10) $\sqrt{8} + 2\sqrt{18} + \sqrt{32}$

$\quad = 2\sqrt{2} + 6\sqrt{2} + 4\sqrt{2}$

答. $12\sqrt{2}$