

展開 05-1

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $\left(y - \frac{2}{3}\right)^2$

(2) $(x - 1)\left(x + \frac{1}{2}\right)$

(3) $\left(b + \frac{1}{3}\right)\left(b + \frac{3}{2}\right)$

(4) $\left(x - \frac{8}{3}\right)\left(x + \frac{8}{3}\right)$

(5) $\left(x - \frac{4}{3}\right)\left(x + \frac{8}{3}\right)$

(6) $\left(x + \frac{5}{2}\right)(x + 1)$

(7) $\left(x - \frac{5}{3}\right)\left(x + \frac{5}{3}\right)$

(8) $\left(y - \frac{1}{5}\right)\left(y - \frac{4}{3}\right)$

(9) $\left(a + \frac{3}{2}\right)\left(a - \frac{6}{5}\right)$

(10) $\left(x + \frac{5}{4}\right)\left(x + \frac{4}{3}\right)$

(11) $(4x + 1)^2$

(12) $\left(3b - \frac{8}{3}\right)\left(3b + \frac{8}{3}\right)$

(13) $(3y - 3)(3y + 2)$

(14) $\left(2x - \frac{5}{3}\right)\left(2x + \frac{5}{2}\right)$

(15) $(3x + 3)\left(3x - \frac{5}{2}\right)$

(16) $\left(3x + \frac{8}{5}\right)\left(3x + \frac{3}{5}\right)$

(17) $\left(5x + \frac{8}{3}\right)(5x - 2)$

(18) $\left(2x - \frac{1}{4}\right)\left(2x - \frac{1}{5}\right)$

(19) $(3a + 1)(3a - 3)$

(20) $(4a + 1)^2$

展開 05-1

(点) (分 秒)

次の式を展開しなさい。(1問5点)

$$(1) \left(y - \frac{2}{3}\right)^2 = \mathbf{y^2 - \frac{4}{3}y + \frac{4}{9}}$$

$$(2) (x-1)\left(x + \frac{1}{2}\right) = \mathbf{x^2 - \frac{1}{2}x - \frac{1}{2}}$$

$$(3) \left(b + \frac{1}{3}\right)\left(b + \frac{3}{2}\right) = \mathbf{b^2 + \frac{11}{6}b + \frac{1}{2}}$$

$$(4) \left(x - \frac{8}{3}\right)\left(x + \frac{8}{3}\right) = \mathbf{x^2 - \frac{64}{9}}$$

$$(5) \left(x - \frac{4}{3}\right)\left(x + \frac{8}{3}\right) = \mathbf{x^2 + \frac{4}{3}x - \frac{32}{9}}$$

$$(6) \left(x + \frac{5}{2}\right)(x+1) = \mathbf{x^2 + \frac{7}{2}x + \frac{5}{2}}$$

$$(7) \left(x - \frac{5}{3}\right)\left(x + \frac{5}{3}\right) = \mathbf{x^2 - \frac{25}{9}}$$

$$(8) \left(y - \frac{1}{5}\right)\left(y - \frac{4}{3}\right)$$

$$= \mathbf{y^2 - \frac{23}{15}y + \frac{4}{15}}$$

$$(9) \left(a + \frac{3}{2}\right)\left(a - \frac{6}{5}\right) = \mathbf{a^2 + \frac{3}{10}a - \frac{9}{5}}$$

$$(10) \left(x + \frac{5}{4}\right)\left(x + \frac{4}{3}\right) = \mathbf{x^2 + \frac{31}{12}x + \frac{5}{3}}$$

$$(11) (4x+1)^2 = \mathbf{16x^2 + 8x + 1}$$

$$(12) \left(3b - \frac{8}{3}\right)\left(3b + \frac{8}{3}\right) = \mathbf{9b^2 - \frac{64}{9}}$$

$$(13) (3y-3)(3y+2) = \mathbf{9y^2 - 3y - 6}$$

$$(14) \left(2x - \frac{5}{3}\right)\left(2x + \frac{5}{2}\right)$$

$$= \mathbf{4x^2 + \frac{5}{3}x - \frac{25}{6}}$$

$$(15) (3x+3)\left(3x - \frac{5}{2}\right)$$

$$= \mathbf{9x^2 + \frac{3}{2}x - \frac{15}{2}}$$

$$(16) \left(3x + \frac{8}{5}\right)\left(3x + \frac{3}{5}\right)$$

$$= \mathbf{9x^2 + \frac{33}{5}x + \frac{24}{25}}$$

$$(17) \left(5x + \frac{8}{3}\right)(5x-2)$$

$$= \mathbf{25x^2 + \frac{10}{3}x - \frac{16}{3}}$$

$$(18) \left(2x - \frac{1}{4}\right)\left(2x - \frac{1}{5}\right)$$

$$= \mathbf{4x^2 - \frac{9}{10}x + \frac{1}{20}}$$

$$(19) (3a+1)(3a-3) = \mathbf{9a^2 - 6a - 3}$$

$$(20) (4a+1)^2 = \mathbf{16a^2 + 8a + 1}$$

展開 05-2

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $\left(a - \frac{4}{3}\right)\left(a + \frac{4}{3}\right)$

(2) $\left(y - \frac{3}{2}\right)\left(y + \frac{3}{2}\right)$

(3) $\left(x - \frac{5}{3}\right)\left(x - \frac{5}{2}\right)$

(4) $\left(b + \frac{8}{3}\right)\left(b - \frac{2}{3}\right)$

(5) $\left(x + \frac{7}{2}\right)\left(x - \frac{7}{2}\right)$

(6) $(a - 2)(a + 2)$

(7) $(x - 1)(x + 1)$

(8) $\left(x + \frac{7}{2}\right)\left(x + \frac{7}{3}\right)$

(9) $(a - 1)\left(a - \frac{7}{5}\right)$

(10) $\left(x + \frac{5}{4}\right)(x - 4)$

(11) $\left(4y + \frac{1}{3}\right)(4y + 2)$

(12) $(5a + 2)\left(5a + \frac{1}{3}\right)$

(13) $\left(3x + \frac{7}{2}\right)\left(3x + \frac{7}{3}\right)$

(14) $\left(3b - \frac{5}{2}\right)^2$

(15) $\left(4x + \frac{1}{3}\right)\left(4x - \frac{1}{3}\right)$

(16) $\left(3y - \frac{5}{4}\right)\left(3y + \frac{7}{3}\right)$

(17) $(4y - 3)\left(4y - \frac{7}{2}\right)$

(18) $\left(3b + \frac{3}{5}\right)\left(3b + \frac{7}{5}\right)$

(19) $(3b - 3)\left(3b - \frac{7}{4}\right)$

(20) $(4x - 1)\left(4x - \frac{3}{2}\right)$

展開 05-2

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $\left(a - \frac{4}{3}\right)\left(a + \frac{4}{3}\right) = a^2 - \frac{16}{9}$

(2) $\left(y - \frac{3}{2}\right)\left(y + \frac{3}{2}\right) = y^2 - \frac{9}{4}$

(3) $\begin{aligned} \left(x - \frac{5}{3}\right)\left(x - \frac{5}{2}\right) \\ = x^2 - \frac{25}{6}x + \frac{25}{6} \end{aligned}$

(4) $\left(b + \frac{8}{3}\right)\left(b - \frac{2}{3}\right) = b^2 + 2b - \frac{16}{9}$

(5) $\left(x + \frac{7}{2}\right)\left(x - \frac{7}{2}\right) = x^2 - \frac{49}{4}$

(6) $(a - 2)(a + 2) = a^2 - 4$

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

(8) $\begin{aligned} \left(x + \frac{7}{2}\right)\left(x + \frac{7}{3}\right) \\ = x^2 + \frac{35}{6}x + \frac{49}{6} \end{aligned}$

(9) $(a - 1)\left(a - \frac{7}{5}\right) = a^2 - \frac{12}{5}a + \frac{7}{5}$

(10) $\left(x + \frac{5}{4}\right)(x - 4) = x^2 - \frac{11}{4}x - 5$

(11) $\begin{aligned} \left(4y + \frac{1}{3}\right)(4y + 2) \\ = 16y^2 + \frac{28}{3}y + \frac{2}{3} \end{aligned}$

(12) $\begin{aligned} (5a + 2)\left(5a + \frac{1}{3}\right) \\ = 25a^2 + \frac{35}{3}a + \frac{2}{3} \end{aligned}$

(13) $\begin{aligned} \left(3x + \frac{7}{2}\right)\left(3x + \frac{7}{3}\right) \\ = 9x^2 + \frac{35}{2}x + \frac{49}{6} \end{aligned}$

(14) $\left(3b - \frac{5}{2}\right)^2 = 9b^2 - 15b + \frac{25}{4}$

(15) $\left(4x + \frac{1}{3}\right)\left(4x - \frac{1}{3}\right) = 16x^2 - \frac{1}{9}$

(16) $\begin{aligned} \left(3y - \frac{5}{4}\right)\left(3y + \frac{7}{3}\right) \\ = 9y^2 + \frac{13}{4}y - \frac{35}{12} \end{aligned}$

(17) $\begin{aligned} (4y - 3)\left(4y - \frac{7}{2}\right) \\ = 16y^2 - 26y + \frac{21}{2} \end{aligned}$

(18) $\left(3b + \frac{3}{5}\right)\left(3b + \frac{7}{5}\right) = 9b^2 + 6b + \frac{21}{25}$

(19) $\begin{aligned} (3b - 3)\left(3b - \frac{7}{4}\right) \\ = 9b^2 - \frac{57}{4}b + \frac{21}{4} \end{aligned}$

(20) $\begin{aligned} (4x - 1)\left(4x - \frac{3}{2}\right) \\ = 16x^2 - 10x + \frac{3}{2} \end{aligned}$

展開 05-3

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $\left(x + \frac{7}{2}\right)(x + 1)$

(2) $\left(b + \frac{7}{2}\right)^2$

(3) $(x - 3)(x + 3)$

(4) $(b - 4)^2$

(5) $\left(x - \frac{8}{3}\right)\left(x + \frac{4}{3}\right)$

(6) $\left(b - \frac{5}{3}\right)\left(b + \frac{3}{2}\right)$

(7) $(x - 3)\left(x + \frac{1}{3}\right)$

(8) $(x - 4)\left(x - \frac{1}{3}\right)$

(9) $(b + 2)^2$

(10) $(a + 1)^2$

(11) $(5x + 4)(5x - 4)$

(12) $(4x - 2)(4x + 2)$

(13) $\left(2x - \frac{7}{3}\right)\left(2x - \frac{5}{3}\right)$

(14) $\left(4x + \frac{1}{2}\right)\left(4x - \frac{1}{2}\right)$

(15) $(3a + 3)\left(3a + \frac{7}{3}\right)$

(16) $\left(3b + \frac{5}{4}\right)\left(3b - \frac{8}{5}\right)$

(17) $\left(5x - \frac{6}{5}\right)\left(5x - \frac{3}{5}\right)$

(18) $\left(5x - \frac{6}{5}\right)(5x + 4)$

(19) $\left(3a - \frac{1}{5}\right)\left(3a + \frac{1}{5}\right)$

(20) $(2x + 2)\left(2x - \frac{7}{2}\right)$

展開 05-3

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次の式を展開しなさい。(1問5点)

$$(1) \left(x + \frac{7}{2}\right)(x+1) = x^2 + \frac{9}{2}x + \frac{7}{2}$$

$$(2) \left(b + \frac{7}{2}\right)^2 = b^2 + 7b + \frac{49}{4}$$

$$(3) (x-3)(x+3) = x^2 - 9$$

$$(4) (b-4)^2 = b^2 - 8b + 16$$

$$(5) \left(x - \frac{8}{3}\right)\left(x + \frac{4}{3}\right) = x^2 - \frac{4}{3}x - \frac{32}{9}$$

$$(6) \left(b - \frac{5}{3}\right)\left(b + \frac{3}{2}\right) = b^2 - \frac{1}{6}b - \frac{5}{2}$$

$$(7) (x-3)\left(x + \frac{1}{3}\right) = x^2 - \frac{8}{3}x - 1$$

$$(8) (x-4)\left(x - \frac{1}{3}\right) = x^2 - \frac{13}{3}x + \frac{4}{3}$$

$$(9) (b+2)^2 = b^2 + 4b + 4$$

$$(10) (a+1)^2 = a^2 + 2a + 1$$

$$(11) (5x+4)(5x-4) = 25x^2 - 16$$

$$(12) (4x-2)(4x+2) = 16x^2 - 4$$

$$(13) \left(2x - \frac{7}{3}\right)\left(2x - \frac{5}{3}\right) = 4x^2 - 8x + \frac{35}{9}$$

$$(14) \left(4x + \frac{1}{2}\right)\left(4x - \frac{1}{2}\right) = 16x^2 - \frac{1}{4}$$

$$(15) (3a+3)\left(3a + \frac{7}{3}\right) = 9a^2 + 16a + 7$$

$$(16) \left(3b + \frac{5}{4}\right)\left(3b - \frac{8}{5}\right) = 9b^2 - \frac{21}{20}b - 2$$

$$(17) \left(5x - \frac{6}{5}\right)\left(5x - \frac{3}{5}\right) = 25x^2 - 9x + \frac{18}{25}$$

$$(18) \left(5x - \frac{6}{5}\right)(5x+4) = 25x^2 + 14x - \frac{24}{5}$$

$$(19) \left(3a - \frac{1}{5}\right)\left(3a + \frac{1}{5}\right) = 9a^2 - \frac{1}{25}$$

$$(20) (2x+2)\left(2x - \frac{7}{2}\right) = 4x^2 - 3x - 7$$

展開 05-4

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $\left(b + \frac{7}{3}\right)(b - 1)$

(2) $(x + 4)(x - 3)$

(3) $\left(x + \frac{7}{3}\right)^2$

(4) $(x + 4)(x - 2)$

(5) $(x - 4)(x - 1)$

(6) $(a - 1)\left(a + \frac{7}{3}\right)$

(7) $\left(y + \frac{3}{2}\right)\left(y - \frac{3}{2}\right)$

(8) $\left(a - \frac{3}{2}\right)\left(a + \frac{3}{2}\right)$

(9) $\left(x - \frac{7}{3}\right)\left(x + \frac{1}{2}\right)$

(10) $(b - 1)\left(b + \frac{8}{5}\right)$

(11) $(2x - 2)(2x + 2)$

(12) $\left(4b + \frac{2}{3}\right)(4b + 3)$

(13) $(3a + 2)\left(3a - \frac{7}{2}\right)$

(14) $(3x - 2)(3x + 1)$

(15) $(5x - 3)^2$

(16) $\left(4a - \frac{5}{4}\right)\left(4a + \frac{5}{4}\right)$

(17) $\left(3y + \frac{1}{2}\right)\left(3y - \frac{1}{2}\right)$

(18) $\left(3a + \frac{3}{2}\right)(3a - 2)$

(19) $\left(4y + \frac{7}{3}\right)\left(4y - \frac{7}{3}\right)$

(20) $\left(4x + \frac{8}{3}\right)\left(4x - \frac{8}{3}\right)$

展開 05-4

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $(b + \frac{7}{3})(b - 1) = b^2 + \frac{4}{3}b - \frac{7}{3}$

(2) $(x + 4)(x - 3) = x^2 + x - 12$

(3) $(x + \frac{7}{3})^2 = x^2 + \frac{14}{3}x + \frac{49}{9}$

(4) $(x + 4)(x - 2) = x^2 + 2x - 8$

(5) $(x - 4)(x - 1) = x^2 - 5x + 4$

(6) $(a - 1)(a + \frac{7}{3}) = a^2 + \frac{4}{3}a - \frac{7}{3}$

(7) $(y + \frac{3}{2})(y - \frac{3}{2}) = y^2 - \frac{9}{4}$

(8) $(a - \frac{3}{2})(a + \frac{3}{2}) = a^2 - \frac{9}{4}$

(9) $(x - \frac{7}{3})(x + \frac{1}{2}) = x^2 - \frac{11}{6}x - \frac{7}{6}$

(10) $(b - 1)(b + \frac{8}{5}) = b^2 + \frac{3}{5}b - \frac{8}{5}$

(11) $(2x - 2)(2x + 2) = 4x^2 - 4$

(12) $(4b + \frac{2}{3})(4b + 3) = 16b^2 + \frac{44}{3}b + 2$

(13) $(3a + 2)(3a - \frac{7}{2}) = 9a^2 - \frac{9}{2}a - 7$

(14) $(3x - 2)(3x + 1) = 9x^2 - 3x - 2$

(15) $(5x - 3)^2 = 25x^2 - 30x + 9$

(16) $(4a - \frac{5}{4})(4a + \frac{5}{4}) = 16a^2 - \frac{25}{16}$

(17) $(3y + \frac{1}{2})(3y - \frac{1}{2}) = 9y^2 - \frac{1}{4}$

(18) $(3a + \frac{3}{2})(3a - 2) = 9a^2 - \frac{3}{2}a - 3$

(19) $(4y + \frac{7}{3})(4y - \frac{7}{3}) = 16y^2 - \frac{49}{9}$

(20) $(4x + \frac{8}{3})(4x - \frac{8}{3}) = 16x^2 - \frac{64}{9}$

展開 05-5

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $\left(x - \frac{5}{3}\right)\left(x + \frac{5}{3}\right)$

(2) $\left(b - \frac{1}{2}\right)(b + 2)$

(3) $\left(x - \frac{1}{3}\right)\left(x + \frac{8}{3}\right)$

(4) $\left(y - \frac{7}{3}\right)\left(y - \frac{2}{3}\right)$

(5) $(x + 2)\left(x + \frac{1}{2}\right)$

(6) $\left(y + \frac{2}{5}\right)\left(y - \frac{8}{5}\right)$

(7) $(a + 3)\left(a + \frac{3}{2}\right)$

(8) $(a - 3)(a + 3)$

(9) $\left(x - \frac{1}{4}\right)\left(x - \frac{5}{4}\right)$

(10) $\left(x - \frac{3}{4}\right)\left(x + \frac{3}{4}\right)$

(11) $(2x + 3)(2x - 3)$

(12) $\left(4a - \frac{1}{3}\right)(4a + 1)$

(13) $(3b + 3)\left(3b - \frac{1}{2}\right)$

(14) $\left(3x - \frac{8}{3}\right)(3x - 2)$

(15) $(4b + 4)^2$

(16) $\left(4a + \frac{3}{5}\right)\left(4a - \frac{3}{4}\right)$

(17) $\left(4y - \frac{3}{2}\right)\left(4y + \frac{7}{4}\right)$

(18) $\left(2a - \frac{3}{5}\right)\left(2a + \frac{1}{3}\right)$

(19) $(4a + 2)\left(4a - \frac{6}{5}\right)$

(20) $\left(2b - \frac{6}{5}\right)\left(2b + \frac{8}{5}\right)$

展開 05-5

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $\left(x - \frac{5}{3}\right)\left(x + \frac{5}{3}\right) = x^2 - \frac{25}{9}$

(2) $\left(b - \frac{1}{2}\right)(b + 2) = b^2 + \frac{3}{2}b - 1$

(3) $\left(x - \frac{1}{3}\right)\left(x + \frac{8}{3}\right) = x^2 + \frac{7}{3}x - \frac{8}{9}$

(4) $\left(y - \frac{7}{3}\right)\left(y - \frac{2}{3}\right) = y^2 - 3y + \frac{14}{9}$

(5) $(x + 2)\left(x + \frac{1}{2}\right) = x^2 + \frac{5}{2}x + 1$

(6) $\left(y + \frac{2}{5}\right)\left(y - \frac{8}{5}\right) = y^2 - \frac{6}{5}y - \frac{16}{25}$

(7) $(a + 3)\left(a + \frac{3}{2}\right) = a^2 + \frac{9}{2}a + \frac{9}{2}$

(8) $(a - 3)(a + 3) = a^2 - 9$

(9) $\left(x - \frac{1}{4}\right)\left(x - \frac{5}{4}\right) = x^2 - \frac{3}{2}x + \frac{5}{16}$

(10) $\left(x - \frac{3}{4}\right)\left(x + \frac{3}{4}\right) = x^2 - \frac{9}{16}$

(11) $(2x + 3)(2x - 3) = 4x^2 - 9$

(12) $\left(4a - \frac{1}{3}\right)(4a + 1)$
 $= 16a^2 + \frac{8}{3}a - \frac{1}{3}$

(13) $(3b + 3)\left(3b - \frac{1}{2}\right) = 9b^2 + \frac{15}{2}b - \frac{3}{2}$

(14) $\left(3x - \frac{8}{3}\right)(3x - 2)$
 $= 9x^2 - 14x + \frac{16}{3}$

(15) $(4b + 4)^2 = 16b^2 + 32b + 16$

(16) $\left(4a + \frac{3}{5}\right)\left(4a - \frac{3}{4}\right)$
 $= 16a^2 - \frac{3}{5}a - \frac{9}{20}$

(17) $\left(4y - \frac{3}{2}\right)\left(4y + \frac{7}{4}\right)$
 $= 16y^2 + y - \frac{21}{8}$

(18) $\left(2a - \frac{3}{5}\right)\left(2a + \frac{1}{3}\right)$
 $= 4a^2 - \frac{8}{15}a - \frac{1}{5}$

(19) $(4a + 2)\left(4a - \frac{6}{5}\right)$
 $= 16a^2 + \frac{16}{5}a - \frac{12}{5}$

(20) $\left(2b - \frac{6}{5}\right)\left(2b + \frac{8}{5}\right)$
 $= 4b^2 + \frac{4}{5}b - \frac{48}{25}$

展開 05-6

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $(x - 4)^2$

(2) $(y + \frac{7}{3})(y + 2)$

(3) $(x - \frac{1}{3})(x + \frac{3}{2})$

(4) $(y + 1)(y - \frac{5}{3})$

(5) $(x + \frac{4}{3})(x + 1)$

(6) $(x - \frac{5}{2})(x + \frac{5}{2})$

(7) $(b + \frac{4}{5})(b + \frac{3}{4})$

(8) $(x + \frac{3}{2})^2$

(9) $(x + \frac{1}{4})(x + 4)$

(10) $(x - \frac{8}{5})(x - \frac{7}{4})$

(11) $(3y - 4)(3y - 2)$

(12) $(5x + \frac{8}{3})(5x + \frac{1}{3})$

(13) $(2x + 4)(2x - \frac{5}{3})$

(14) $(3x - \frac{4}{3})^2$

(15) $(5x + \frac{7}{2})(5x - \frac{7}{2})$

(16) $(4x + \frac{1}{2})(4x - \frac{2}{3})$

(17) $(2x - 2)(2x - 1)$

(18) $(2x + \frac{4}{5})^2$

(19) $(4x + \frac{1}{3})^2$

(20) $(3x + \frac{8}{5})(3x - \frac{5}{4})$

展開 05-6

(点) (分 秒)

次の式を展開しなさい。(1問5点)

$$(1) (x-4)^2 = x^2 - 8x + 16$$

$$(2) \left(y + \frac{7}{3}\right)(y+2) = y^2 + \frac{13}{3}y + \frac{14}{3}$$

$$(3) \left(x - \frac{1}{3}\right)\left(x + \frac{3}{2}\right) = x^2 + \frac{7}{6}x - \frac{1}{2}$$

$$(4) (y+1)\left(y - \frac{5}{3}\right) = y^2 - \frac{2}{3}y - \frac{5}{3}$$

$$(5) \left(x + \frac{4}{3}\right)(x+1) = x^2 + \frac{7}{3}x + \frac{4}{3}$$

$$(6) \left(x - \frac{5}{2}\right)\left(x + \frac{5}{2}\right) = x^2 - \frac{25}{4}$$

$$(7) \left(b + \frac{4}{5}\right)\left(b + \frac{3}{4}\right) = b^2 + \frac{31}{20}b + \frac{3}{5}$$

$$(8) \left(x + \frac{3}{2}\right)^2 = x^2 + 3x + \frac{9}{4}$$

$$(9) \left(x + \frac{1}{4}\right)(x+4) = x^2 + \frac{17}{4}x + 1$$

$$(10) \left(x - \frac{8}{5}\right)\left(x - \frac{7}{4}\right) \\ = x^2 - \frac{67}{20}x + \frac{14}{5}$$

$$(11) (3y-4)(3y-2) = 9y^2 - 18y + 8$$

$$(12) \left(5x + \frac{8}{3}\right)\left(5x + \frac{1}{3}\right) \\ = 25x^2 + 15x + \frac{8}{9}$$

$$(13) (2x+4)\left(2x - \frac{5}{3}\right) \\ = 4x^2 + \frac{14}{3}x - \frac{20}{3}$$

$$(14) \left(3x - \frac{4}{3}\right)^2 = 9x^2 - 8x + \frac{16}{9}$$

$$(15) \left(5x + \frac{7}{2}\right)\left(5x - \frac{7}{2}\right) = 25x^2 - \frac{49}{4}$$

$$(16) \left(4x + \frac{1}{2}\right)\left(4x - \frac{2}{3}\right) \\ = 16x^2 - \frac{2}{3}x - \frac{1}{3}$$

$$(17) (2x-2)(2x-1) = 4x^2 - 6x + 2$$

$$(18) \left(2x + \frac{4}{5}\right)^2 = 4x^2 + \frac{16}{5}x + \frac{16}{25}$$

$$(19) \left(4x + \frac{1}{3}\right)^2 = 16x^2 + \frac{8}{3}x + \frac{1}{9}$$

$$(20) \left(3x + \frac{8}{5}\right)\left(3x - \frac{5}{4}\right) \\ = 9x^2 + \frac{21}{20}x - 2$$

展開 05-7

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $(a - 2) \left(a + \frac{2}{3} \right)$

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

(3) $(x - 3) \left(x + \frac{7}{3} \right)$

(4) $\left(x + \frac{1}{2} \right) \left(x - \frac{8}{3} \right)$

(5) $\left(a - \frac{7}{3} \right) \left(a + \frac{7}{3} \right)$

(6) $\left(b + \frac{6}{5} \right)^2$

(7) $\left(x - \frac{3}{2} \right) \left(x - \frac{7}{3} \right)$

(8) $\left(x + \frac{1}{5} \right) \left(x - \frac{1}{5} \right)$

(9) $\left(x - \frac{2}{5} \right) \left(x - \frac{5}{4} \right)$

(10) $(a + 1)^2$

(11) $\left(4x + \frac{7}{3} \right)^2$

(12) $\left(4y + \frac{8}{3} \right) \left(4y - \frac{8}{3} \right)$

(13) $(5x + 3)(5x + 2)$

(14) $(5x + 1) \left(5x - \frac{5}{2} \right)$

(15) $(4x - 1)(4x + 1)$

(16) $\left(4b + \frac{7}{4} \right) \left(4b + \frac{7}{2} \right)$

(17) $\left(5y + \frac{5}{2} \right) (5y - 4)$

(18) $\left(5x + \frac{2}{5} \right) (5x - 4)$

(19) $\left(3x + \frac{7}{2} \right) \left(3x + \frac{2}{5} \right)$

(20) $\left(3x - \frac{3}{2} \right) (3x + 3)$

展開 05-7

(点) (分 秒)

次の式を展開しなさい。(1問5点)

$$(1) (a-2)\left(a+\frac{2}{3}\right) = a^2 - \frac{4}{3}a - \frac{4}{3}$$

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

$$(3) (x-3)\left(x+\frac{7}{3}\right) = x^2 - \frac{2}{3}x - 7$$

$$(4) \left(x+\frac{1}{2}\right)\left(x-\frac{8}{3}\right) = x^2 - \frac{13}{6}x - \frac{4}{3}$$

$$(5) \left(a-\frac{7}{3}\right)\left(a+\frac{7}{3}\right) = a^2 - \frac{49}{9}$$

$$(6) \left(b+\frac{6}{5}\right)^2 = b^2 + \frac{12}{5}b + \frac{36}{25}$$

$$(7) \left(x-\frac{3}{2}\right)\left(x-\frac{7}{3}\right) = x^2 - \frac{23}{6}x + \frac{7}{2}$$

$$(8) \left(x+\frac{1}{5}\right)\left(x-\frac{1}{5}\right) = x^2 - \frac{1}{25}$$

$$(9) \left(x-\frac{2}{5}\right)\left(x-\frac{5}{4}\right) = x^2 - \frac{33}{20}x + \frac{1}{2}$$

$$(10) (a+1)^2 = a^2 + 2a + 1$$

$$(11) \left(4x+\frac{7}{3}\right)^2 = 16x^2 + \frac{56}{3}x + \frac{49}{9}$$

$$(12) \left(4y+\frac{8}{3}\right)\left(4y-\frac{8}{3}\right) = 16y^2 - \frac{64}{9}$$

$$(13) (5x+3)(5x+2) = 25x^2 + 25x + 6$$

$$(14) (5x+1)\left(5x-\frac{5}{2}\right) = 25x^2 - \frac{15}{2}x - \frac{5}{2}$$

$$(15) (4x-1)(4x+1) = 16x^2 - 1$$

$$(16) \left(4b+\frac{7}{4}\right)\left(4b+\frac{7}{2}\right) = 16b^2 + 21b + \frac{49}{8}$$

$$(17) \left(5y+\frac{5}{2}\right)(5y-4) = 25y^2 - \frac{15}{2}y - 10$$

$$(18) \left(5x+\frac{2}{5}\right)(5x-4) = 25x^2 - 18x - \frac{8}{5}$$

$$(19) \left(3x+\frac{7}{2}\right)\left(3x+\frac{2}{5}\right) = 9x^2 + \frac{117}{10}x + \frac{7}{5}$$

$$(20) \left(3x-\frac{3}{2}\right)(3x+3) = 9x^2 + \frac{9}{2}x - \frac{9}{2}$$

展開 05-8

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $\left(a + \frac{8}{3}\right)\left(a - \frac{8}{3}\right)$

(2) $\left(x - \frac{1}{2}\right)\left(x + \frac{1}{2}\right)$

(3) $\left(y + \frac{2}{3}\right)(y + 3)$

(4) $\left(x + \frac{7}{3}\right)\left(x - \frac{1}{2}\right)$

(5) $(b - 3)(b + 1)$

(6) $\left(x + \frac{7}{3}\right)\left(x - \frac{5}{4}\right)$

(7) $\left(b - \frac{5}{2}\right)\left(b + \frac{5}{2}\right)$

(8) $\left(a + \frac{1}{3}\right)^2$

(9) $(a + 4)(a - 4)$

(10) $\left(y + \frac{3}{2}\right)\left(y + \frac{3}{4}\right)$

(11) $\left(3y - \frac{1}{3}\right)^2$

(12) $\left(5a + \frac{1}{2}\right)\left(5a + \frac{1}{3}\right)$

(13) $(2x - 3)\left(2x + \frac{5}{2}\right)$

(14) $\left(4y - \frac{1}{2}\right)\left(4y - \frac{5}{2}\right)$

(15) $\left(5x - \frac{7}{2}\right)\left(5x + \frac{8}{3}\right)$

(16) $\left(2a + \frac{8}{5}\right)\left(2a + \frac{1}{2}\right)$

(17) $\left(4b - \frac{4}{3}\right)^2$

(18) $\left(4x - \frac{7}{3}\right)\left(4x + \frac{3}{4}\right)$

(19) $\left(5y + \frac{7}{3}\right)^2$

(20) $\left(5a + \frac{8}{5}\right)\left(5a - \frac{8}{5}\right)$

展開 05-9

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $(a + 4) \left(a + \frac{4}{3} \right)$

(2) $(x + 2) \left(x + \frac{3}{2} \right)$

(3) $\left(x - \frac{7}{2} \right) (x - 2)$

(4) $(y + 3)^2$

(5) $\left(x + \frac{1}{3} \right) \left(x + \frac{1}{2} \right)$

(6) $(x - 2)(x + 2)$

(7) $\left(x + \frac{1}{2} \right)^2$

(8) $\left(y - \frac{1}{4} \right) \left(y + \frac{1}{4} \right)$

(9) $\left(x + \frac{7}{4} \right)^2$

(10) $\left(b - \frac{7}{4} \right) \left(b + \frac{1}{4} \right)$

(11) $\left(4x - \frac{1}{2} \right) \left(4x + \frac{2}{3} \right)$

(12) $\left(2y + \frac{4}{3} \right)^2$

(13) $\left(2x + \frac{3}{2} \right) (2x - 1)$

(14) $\left(5x - \frac{5}{2} \right)^2$

(15) $\left(5b - \frac{1}{2} \right) \left(5b + \frac{2}{3} \right)$

(16) $\left(2a + \frac{5}{4} \right) \left(2a - \frac{5}{4} \right)$

(17) $\left(2a - \frac{2}{3} \right)^2$

(18) $\left(2a + \frac{2}{5} \right)^2$

(19) $(2x - 4) \left(2x + \frac{8}{3} \right)$

(20) $\left(5y + \frac{8}{5} \right)^2$

展開 05-9

(点) (分 秒)

次の式を展開しなさい。(1問5点)

$$(1) (a+4)\left(a+\frac{4}{3}\right) = a^2 + \frac{16}{3}a + \frac{16}{3} \quad (2) (x+2)\left(x+\frac{3}{2}\right) = x^2 + \frac{7}{2}x + 3$$

$$(3) \left(x-\frac{7}{2}\right)(x-2) = x^2 - \frac{11}{2}x + 7 \quad (4) (y+3)^2 = y^2 + 6y + 9$$

$$(5) \left(x+\frac{1}{3}\right)\left(x+\frac{1}{2}\right) = x^2 + \frac{5}{6}x + \frac{1}{6} \quad (6) (x-2)(x+2) = x^2 - 4$$

$$(7) \left(x+\frac{1}{2}\right)^2 = x^2 + x + \frac{1}{4} \quad (8) \left(y-\frac{1}{4}\right)\left(y+\frac{1}{4}\right) = y^2 - \frac{1}{16}$$

$$(9) \left(x+\frac{7}{4}\right)^2 = x^2 + \frac{7}{2}x + \frac{49}{16} \quad (10) \left(b-\frac{7}{4}\right)\left(b+\frac{1}{4}\right) = b^2 - \frac{3}{2}b - \frac{7}{16}$$

$$(11) \left(4x-\frac{1}{2}\right)\left(4x+\frac{2}{3}\right) = 16x^2 + \frac{2}{3}x - \frac{1}{3} \quad (12) \left(2y+\frac{4}{3}\right)^2 = 4y^2 + \frac{16}{3}y + \frac{16}{9}$$

$$(13) \left(2x+\frac{3}{2}\right)(2x-1) = 4x^2 + x - \frac{3}{2} \quad (14) \left(5x-\frac{5}{2}\right)^2 = 25x^2 - 25x + \frac{25}{4}$$

$$(15) \left(5b-\frac{1}{2}\right)\left(5b+\frac{2}{3}\right) = 25b^2 + \frac{5}{6}b - \frac{1}{3} \quad (16) \left(2a+\frac{5}{4}\right)\left(2a-\frac{5}{4}\right) = 4a^2 - \frac{25}{16}$$

$$(17) \left(2a-\frac{2}{3}\right)^2 = 4a^2 - \frac{8}{3}a + \frac{4}{9} \quad (18) \left(2a+\frac{2}{5}\right)^2 = 4a^2 + \frac{8}{5}a + \frac{4}{25}$$

$$(19) (2x-4)\left(2x+\frac{8}{3}\right) = 4x^2 - \frac{8}{3}x - \frac{32}{3} \quad (20) \left(5y+\frac{8}{5}\right)^2 = 25y^2 + 16y + \frac{64}{25}$$

展開 05-10

(点) (分 秒)

次の式を展開しなさい。(1問5点)

(1) $(a + 2)^2$

(2) $(a - 3)\left(a - \frac{1}{3}\right)$

(3) $\left(x + \frac{7}{3}\right)\left(x - \frac{5}{2}\right)$

(4) $(a - 2)^2$

(5) $(x + 2)(x - 2)$

(6) $\left(x - \frac{3}{2}\right)(x - 4)$

(7) $\left(y - \frac{7}{4}\right)\left(y - \frac{7}{3}\right)$

(8) $\left(b - \frac{7}{5}\right)\left(b + \frac{5}{4}\right)$

(9) $\left(a - \frac{3}{2}\right)\left(a + \frac{3}{2}\right)$

(10) $\left(x + \frac{7}{4}\right)\left(x + \frac{5}{2}\right)$

(11) $\left(4y + \frac{7}{3}\right)\left(4y + \frac{4}{3}\right)$

(12) $\left(5b + \frac{5}{3}\right)(5b + 1)$

(13) $\left(3x - \frac{7}{2}\right)^2$

(14) $\left(3a + \frac{1}{2}\right)\left(3a + \frac{7}{2}\right)$

(15) $(5y - 3)\left(5y - \frac{1}{2}\right)$

(16) $(5y - 3)\left(5y + \frac{5}{2}\right)$

(17) $\left(3b - \frac{1}{2}\right)^2$

(18) $(5a + 3)(5a - 3)$

(19) $\left(2b - \frac{7}{4}\right)\left(2b + \frac{6}{5}\right)$

(20) $(4x - 1)(4x + 1)$

展開 05-10

(点) (分 秒)

次の式を展開しなさい。(1問5点)

$$(1) (a+2)^2 = a^2 + 4a + 4$$

$$(2) (a-3)\left(a - \frac{1}{3}\right) = a^2 - \frac{10}{3}a + 1$$

$$(3) \left(x + \frac{7}{3}\right)\left(x - \frac{5}{2}\right) = x^2 - \frac{1}{6}x - \frac{35}{6}$$

$$(4) (a-2)^2 = a^2 - 4a + 4$$

$$(5) (x+2)(x-2) = x^2 - 4$$

$$(6) \left(x - \frac{3}{2}\right)(x-4) = x^2 - \frac{11}{2}x + 6$$

$$(7) \left(y - \frac{7}{4}\right)\left(y - \frac{7}{3}\right) \\ = y^2 - \frac{49}{12}y + \frac{49}{12}$$

$$(8) \left(b - \frac{7}{5}\right)\left(b + \frac{5}{4}\right) = b^2 - \frac{3}{20}b - \frac{7}{4}$$

$$(9) \left(a - \frac{3}{2}\right)\left(a + \frac{3}{2}\right) = a^2 - \frac{9}{4}$$

$$(10) \left(x + \frac{7}{4}\right)\left(x + \frac{5}{2}\right) \\ = x^2 + \frac{17}{4}x + \frac{35}{8}$$

$$(11) \left(4y + \frac{7}{3}\right)\left(4y + \frac{4}{3}\right) \\ = 16y^2 + \frac{44}{3}y + \frac{28}{9}$$

$$(12) \left(5b + \frac{5}{3}\right)(5b+1) \\ = 25b^2 + \frac{40}{3}b + \frac{5}{3}$$

$$(13) \left(3x - \frac{7}{2}\right)^2 = 9x^2 - 21x + \frac{49}{4}$$

$$(14) \left(3a + \frac{1}{2}\right)\left(3a + \frac{7}{2}\right) \\ = 9a^2 + 12a + \frac{7}{4}$$

$$(15) (5y-3)\left(5y - \frac{1}{2}\right) \\ = 25y^2 - \frac{35}{2}y + \frac{3}{2}$$

$$(16) (5y-3)\left(5y + \frac{5}{2}\right) \\ = 25y^2 - \frac{5}{2}y - \frac{15}{2}$$

$$(17) \left(3b - \frac{1}{2}\right)^2 = 9b^2 - 3b + \frac{1}{4}$$

$$(18) (5a+3)(5a-3) = 25a^2 - 9$$

$$(19) \left(2b - \frac{7}{4}\right)\left(2b + \frac{6}{5}\right) \\ = 4b^2 - \frac{11}{10}b - \frac{21}{10}$$

$$(20) (4x-1)(4x+1) = 16x^2 - 1$$