３年・平方根後　1

年　　組　　番・氏名

① $-2+6$

$=4$

② -4×9

$=-36$

③ $(49x^2y-21xy)\div 7xy$

$=\dfrac{49x^2y}{7xy}-\dfrac{21xy}{7xy}$

$=7x-3$

④ $56x^2y\div 7xy\times 3y$

$=\dfrac{56x^2y\times 3y}{7xy}$

$=24xy$

⑤ $(x+2)(x-2)-(x+1)(x-4)$

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

$=x^2-4-x^2+3x+4$

$=x^2-x^2+3x-4+4$

$=3x$

⑥ $\dfrac{\sqrt{24}}{\sqrt{2}}+(\sqrt{3}-2)^2$

$=\sqrt{12}+\{(\sqrt{3})^2-4\sqrt{3}+2^2\}$

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

$=7-2\sqrt{3}$

⑦ $\dfrac{1}{2}(3x+1)-\dfrac{1}{3}(x-5)$

$=\dfrac{3(3x+1)-2(x-5)}{6}$

$=\dfrac{9x+3-2x+10}{6}$

$=\dfrac{7x+13}{6}$

＜　　年　月　日＞

３年・平方根後　2

年　　組　　番・氏名

① $-3-9$

$=-12$

② $-24\div 3$

$=-8$

③ $(54x^2y-24xy)\div 6xy$

$\div=\dfrac{54x^2y}{6xy}-\dfrac{24xy}{6xy}$

$=9x-4$

④ $40x^2y\div 5xy\times 3y$

$=\dfrac{40x^2y\times 3y}{5xy}$

$=24xy$

⑤ $(x+2)(x-4)-(x+3)(x-5)$

$=x^2-2x-8-(x^2-2x-15)$

$=x^2-2x-8-x^2+2x+15$

$=x^2-x^2-2x+2x-8+15$

$=7$

⑥ $\dfrac{12}{\sqrt{3}}+(\sqrt{3}-2)^2$

$=\dfrac{12\times\sqrt{3}}{\sqrt{3}\times\sqrt{3}}+\{(\sqrt{3})^2-4\sqrt{3}+2^2\}$

$=\dfrac{12\sqrt{3}}{3}+\{3-4\sqrt{3}+4\}$

$=4\sqrt{3}+3-4\sqrt{3}+4=7$

⑦ $\dfrac{1}{3}(2x+1)-\dfrac{1}{4}(x-3)$

$=\dfrac{4(2x+1)-3(x-3)}{12}$

$=\dfrac{8x+4-3x+9}{12}$

$=\dfrac{5x+13}{12}$

＜　　年　月　日＞

３年・平方根後　3

年　　組　　番・氏名

① $2-8$

$=-6$

② $(-5)\times(-6)$

$=30$

③ $(42x^2y-21xy)\div 7xy$

$=\dfrac{42x^2y}{7xy}-\dfrac{21xy}{7xy}$

$=6x-3$

④ $36x^2y\div 9xy\times 7y$

$=\dfrac{36x^2y\times 7y}{9xy}$

$=28xy$

⑤ $(x-2)(x-4)-(x-3)^2$

$=x^2-6x+8-(x^2-6x+9)$

$=x^2-6x+8-x^2+6x-9$

$=x^2-x^2-6x+6x+8-9$

$=-1$

⑥ $(\sqrt{3}+1)(\sqrt{3}-3)+\dfrac{\sqrt{60}}{\sqrt{5}}$

$=(\sqrt{3})^2-2\sqrt{3}-3+\sqrt{12}$

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

$=0$

⑦ $\dfrac{1}{3}(5x+1)-\dfrac{1}{5}(2x-1)$

$=\dfrac{3(5x+1)-5(2x-1)}{15}$

$=\dfrac{15x+3-10x+5}{15}$

$=\dfrac{5x+8}{15}$

＜　　年　月　日＞

３年・平方根後　4

年　　組　　番・氏名

① $-4+11$

$=7$

② $42\div(-7)$

$=-6$

③ $(28x^2y-12xy)\div 4xy$

$=\dfrac{28x^2y}{4xy}-\dfrac{12xy}{4xy}$

$=7x-3$

④ $45x^2y\div 5xy\times 6y$

$=\dfrac{45x^2y\times 6y}{5xy}$

$=54xy$

⑤ $(x-4)(x+1)-(x-6)(x+3)$

$=x^2-3x-4-(x^2-3x-18)$

$=x^2-3x-4-x^2+3x+18$

$=x^2-x^2-3x+3x-4+18$

$=16$

⑥ $(\sqrt{5}+1)^2-\dfrac{15}{\sqrt{5}}$

$=(\sqrt{5})^2+2\sqrt{5}+1^2-\dfrac{15\times\sqrt{5}}{\sqrt{5}\times\sqrt{5}}$

$=5+2\sqrt{5}+1-\dfrac{15\sqrt{5}}{5}$

$=5+2\sqrt{5}+1-3\sqrt{5}=6-\sqrt{5}$

⑦ $\dfrac{1}{3}(2x+1)-\dfrac{1}{4}(3x-2)$

$=\dfrac{4(2x+1)-3(3x-2)}{12}$

$=\dfrac{8x+4-9x-6}{12}$

$=\dfrac{-x-2}{12}$

＜　　年　月　日＞

３年・平方根後　5

年　　組　　番・氏名

① $-2-5$

$=-7$

② -4×8

$=-32$

③ $(40x^2y-25xy)\div 5xy$

$=\dfrac{40x^2y}{5xy}-\dfrac{25xy}{5xy}$

$=8x-5$

④ $56x^2y\div 8xy\times 4y$

$=\dfrac{56x^2y\times 4y}{8xy}$

$=28xy$

⑤ $(x+4)(x-1)-(x+2)(x-2)$

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

$=x^2+3x-4-x^2+4$

$=x^2-x^2+3x-4+4$

$=3x$

⑥ $(\sqrt{2}-3)^2+\dfrac{8}{\sqrt{2}}$

$=(\sqrt{2})^2-6\sqrt{2}+3^2-\dfrac{8\times\sqrt{2}}{\sqrt{2}\times\sqrt{2}}$

$=2-6\sqrt{2}+9-\dfrac{8\sqrt{2}}{2}$

$=2-6\sqrt{2}+9-4\sqrt{2}=11-10\sqrt{2}$

⑦ $\dfrac{1}{3}(2x+3)-\dfrac{1}{5}(3x-2)$

$=\dfrac{5(2x+3)-3(3x-2)}{15}$

$=\dfrac{10x+15-9x+6}{15}$

$=\dfrac{x+21}{15}$

＜　　年　月　日＞

３年・平方根後　6

年　　組　　番・氏名

① $3-8$

$=-5$

② $(-48)\div(-8)$

$=-6$

③ $(48x^2y-18xy)\div 6xy$

$=\dfrac{48x^2y}{6xy}-\dfrac{18xy}{6xy}$

$=8x-3$

④ $28x^2y\div 7xy\times 3y$

$=\dfrac{28x^2y\times 3y}{7xy}$

$=12xy$

⑤ $(x+5)(x-3)-(x+6)(x-4)$

$=x^2+2x-15-(x^2+2x-24)$

$=x^2+2x-15-x^2-2x+24$

$=x^2-x^2+2x-2x-15+24$

$=9$

⑥ $(\sqrt{3}+1)^2-\dfrac{9}{\sqrt{3}}$

$=(\sqrt{3})^2+2\sqrt{3}+1^2-\dfrac{9\times\sqrt{3}}{\sqrt{3}\times\sqrt{3}}$

$=3+2\sqrt{3}+1-\dfrac{9\sqrt{3}}{3}$

$=3+2\sqrt{3}+1-3\sqrt{3}=4-\sqrt{3}$

⑦ $\dfrac{1}{3}(5x+2)-\dfrac{1}{4}(3x-1)$

$=\dfrac{4(5x+2)-3(3x-1)}{12}$

$=\dfrac{20x+8-9x+3}{12}$

$=\dfrac{11x+11}{12}$

＜　　年　月　日＞

３年・平方根後　7

年　　組　　番・氏名

① $-2+5$

$=3$

② $3\times(-9)$

$=6$

③ $(49x^2y-28xy)\div 7xy$

$=\dfrac{49x^2y}{7xy}-\dfrac{28xy}{7xy}$

$=7x-4$

④ $32x^2y\div 8xy\times 6y$

$=\dfrac{32x^2y\times 6y}{8xy}$

$=24xy$

⑤ $(x+2)(x-3)-(x-2)^2$

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

$=x^2-x-6-x^2+4x-4$

$=x^2-x^2-x+4x-6-4$

$=3x-10$

⑥ $(\sqrt{5}-2)^2+\dfrac{15}{\sqrt{5}}$

$=(\sqrt{5})^2-4\sqrt{5}+2^2-\dfrac{15\times\sqrt{5}}{\sqrt{5}\times\sqrt{5}}$

$=5-4\sqrt{5}+4-\dfrac{15\sqrt{5}}{5}$

$=5-4\sqrt{5}+4-3\sqrt{5}=9-7\sqrt{5}$

⑦ $\dfrac{1}{3}(2x+1)-\dfrac{1}{5}(x-2)$

$=\dfrac{5(2x+1)-3(x-2)}{15}$

$=\dfrac{10x+5-3x+6}{15}$

$=\dfrac{7x+11}{15}$

＜　　年　月　日＞

３年・平方根後　8

年　　組　　番・氏名

① $-7-5$

$=-12$

② $54\div(-6)$

$=-9$

③ $(42x^2y-18xy)\div 6xy$

$=\dfrac{42x^2y}{6xy}-\dfrac{18xy}{6xy}$

$=7x-3$

④ $48x^2y\div 8xy\times 3y$

$=\dfrac{48x^2y\times 3y}{8xy}$

$=18xy$

⑤ $(x+4)(x-3)-(x+3)(x-3)$

$=x^2+x-12-(x^2-9)$

$=x^2+x-12-x^2+9$

$=x^2-x^2+x-12+9$

$=x-3$

⑥ $(\sqrt{5}-1)^2+\dfrac{10}{\sqrt{5}}$

$=(\sqrt{5})^2-2\sqrt{5}+1^2-\dfrac{10\times\sqrt{5}}{\sqrt{5}\times\sqrt{5}}$

$=5-2\sqrt{5}+1-\dfrac{10\sqrt{5}}{5}$

$=5-2\sqrt{5}+1-2\sqrt{5}=6-4\sqrt{5}$

⑦ $\dfrac{1}{3}(2x+1)-\dfrac{1}{5}(2x-3)$

$=\dfrac{5(2x+1)-3(2x-3)}{15}$

$=\dfrac{10x+5-6x+9}{15}$

$=\dfrac{4x+14}{15}$

＜　　年　月　日＞