

開始日 /	終了日 /	解説 NO6
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式の計算 NO6
中2 単項式×多項式・多項式÷単項式①

NAME	6A

A コース

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

② $\frac{1}{4}(a-b) - \frac{3}{4}(3a-7b)$
 $= \frac{1}{4}a - \frac{1}{4}b - \frac{9}{4}a + \frac{21}{4}b$
 $= \frac{1}{4}a - \frac{9}{4}a - \frac{1}{4}b + \frac{21}{4}b$
 $= -\frac{8}{4}a + \frac{20}{4}b = -2a + 5b$

③ $\frac{1}{2}(a-3b) - \frac{1}{4}(5a-b)$
 $= \frac{1}{2}a - \frac{3}{2}b - \frac{5}{4}a + \frac{1}{4}b$
 $= \frac{2}{4}a - \frac{5}{4}a - \frac{6}{4}b + \frac{1}{4}b$
 $= -\frac{3}{4}a - \frac{5}{4}b$

④ $\frac{1}{3}(x-2y) + \frac{1}{6}(x-4y)$
 $= \frac{1}{3}x - \frac{2}{3}y + \frac{1}{6}x - \frac{2}{3}y$
 $= \frac{2}{6}x + \frac{1}{6}x - \frac{2}{3}y - \frac{2}{3}y$
 $= \frac{3}{6}x - \frac{4}{3}y = \frac{1}{2}x - \frac{4}{3}y$

⑤ $\frac{1}{3}(2x-9y) + \frac{2}{5}(-x-15y)$
 $= \frac{2}{3}x - 3y - \frac{2}{5}x - 6y$
 $= \frac{10}{15}x - \frac{6}{15}x - 3y - 6y$
 $= \frac{4}{15}x - 9y$

⑥ $\frac{1}{6}(7x-3y) - \frac{1}{4}(5x-6y)$
 $= \frac{7}{6}x - \frac{1}{2}y - \frac{5}{4}x + \frac{3}{2}y$
 $= \frac{14}{12}x - \frac{15}{12}x - \frac{1}{2}y + \frac{3}{2}y$
 $= -\frac{1}{12}x + y$

B コース

① $(-15x+10y) \div (-5)$
 $= \frac{-15x}{-5} + \frac{10y}{-5}$
 $= 3x - 2y$

② $(12m-8n+4) \div 4$
 $= \frac{12m}{4} - \frac{8n}{4} + \frac{4}{4}$
 $= 3m - 2n + 1$

③ $(9a^2+3a-15) \div (-3)$
 $= \frac{3a^2}{-3} + \frac{3a}{-3} - \frac{15}{-3}$
 $= -3a^2 - a + 5$

④ $(2x-6y) \div (-4)$
 $= \frac{2x}{-4} - \frac{6y}{-4}$
 $= -\frac{1}{2}x + \frac{3}{2}y$

⑤ $(-10x^2+8x-15) \div 20$
 $= -\frac{10x^2}{20} + \frac{8x}{20} - \frac{15}{20}$
 $= -\frac{1}{2}x^2 + \frac{2}{5}x - \frac{3}{4}$

⑥ $(15m-6n-9) \div (-9)$
 $= \frac{15m}{-9} - \frac{6n}{-9} - \frac{9}{-9}$
 $= -\frac{5}{3}m + \frac{2}{3}n + 1$

⑦ $(9a-6b) \div 3$
 $= \frac{9a}{3} - \frac{6b}{3}$
 $= 3a - 2b$

⑧ $(-18x+42y) \div 6$
 $= \frac{-18x}{6} + \frac{42y}{6}$
 $= -3x + 7y$

⑨ $(20x+15y) \div (-5)$
 $= \frac{20x}{-5} + \frac{15y}{-5}$
 $= -4x - 3y$

C コース

① $(8x-4y) \div \frac{4}{5}$
 $= (8x-4y) \times \frac{5}{4}$
 $= 8x \times \frac{5}{4} - 4y \times \frac{5}{4}$
 $= 10x - 5y$

② $(-6m^2+3m-9) \div \frac{3}{4}$
 $= (-6m^2+3m-9) \times \frac{4}{3}$
 $= -6m^2 \times \frac{4}{3} + 3m \times \frac{4}{3} - 9 \times \frac{4}{3}$
 $= -8m^2 + 4m - 12$

③ $(5a-10b+15) \div (-\frac{5}{8})$
 $= (5a-10b+15) \times (-\frac{8}{5})$
 $= 5a \times (-\frac{8}{5}) - 10b \times (-\frac{8}{5}) + 15 \times (-\frac{8}{5})$
 $= -8a + 16b - 24$

④ $(3a+7b) \div \frac{1}{2}$
 $= (3a+7b) \times \frac{2}{1}$
 $= 3a \times \frac{2}{1} + 7b \times \frac{2}{1}$
 $= 6a + 14b$

⑤ $(10x-26y) \div (-\frac{2}{3})$
 $= (10x-26y) \times (-\frac{3}{2})$
 $= 10x \times (-\frac{3}{2}) - 26y \times (-\frac{3}{2})$
 $= -15x + 39y$

⑥ $(9x-21y+15) \div \frac{3}{5}$
 $= (9x-21y+15) \times \frac{5}{3}$
 $= 9x \times \frac{5}{3} - 21y \times \frac{5}{3} + 15 \times \frac{5}{3}$
 $= 15x - 35y + 25$