

section 1.5

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$$\begin{aligned} 314) -22p + 17q + (-35p) + (-27q) &= -22p - 35p + 17q - 27q \\ &= \underline{\underline{-57p - 10q}} \end{aligned}$$

$$\begin{aligned} 316) \frac{5}{6}a + \frac{3}{10}b + \frac{1}{6}a + \frac{9}{10}b &= \frac{5}{6}a + \frac{1}{6}a + \frac{3}{10}b + \frac{9}{10}b \\ &= \frac{6}{6}a + \frac{12}{10}b = \underline{\underline{a + \frac{6}{5}b}} \end{aligned}$$

$$\begin{aligned} 318) 9.6m + 7.22n + (-2.19m) + (-0.65n) \\ = 9.60m - 2.19m + 7.22n - 0.65n = \underline{\underline{7.41m + 6.57n}} \end{aligned}$$

$$320) -36 \cdot 11 \cdot \frac{4}{9} = \frac{\overset{-4}{(-36)}(11)(4)}{\underset{1}{(9)}} = \frac{-176}{1} = \underline{\underline{-176}}$$

$$\begin{aligned} 322) \left(\frac{11}{12} + \frac{4}{9}\right) + \frac{5}{9} &= \frac{11}{12} + \frac{4}{9} + \frac{5}{9} = \frac{11}{12} + \left(\frac{4}{9} + \frac{5}{9}\right) \\ &= \frac{11}{12} + \left(\frac{9}{9}\right) = \frac{11}{12} + 1 = \frac{11}{12} + 1 \left(\frac{12}{12}\right) \\ &= \frac{11+12}{12} = \underline{\underline{\frac{23}{12}}} \end{aligned}$$

$$324) 36(0.2)(5) = 36(1) = \underline{\underline{36}}$$

$$326) [9.731(4)](0.75) = (9.731)\left(\frac{4}{1}\right)\left(\frac{3}{4}\right) = (9.731)(3) = \underline{\underline{29.193}}$$

$$328) 20 \left(\frac{3}{5} q \right) = \frac{\overset{4}{\cancel{20}}(3)}{\underset{1}{\cancel{5}}} q = \underline{\underline{12q}}$$

$$330) 27c + 16 - 27c = 27c - 27c + 16 = \underline{\underline{16}}$$

$$332) \frac{2}{5} + \frac{5}{12} + \left(-\frac{2}{5} \right) = \frac{2}{5} - \frac{2}{5} + \frac{5}{12} = \underline{\underline{\frac{5}{12}}}$$

$$334) 100 \left(0.01 p \right) = 100 \left(\frac{1}{100} p \right) = \underline{\underline{p}}$$

$$336) \frac{13}{18} \cdot \frac{25}{7} \cdot \frac{18}{13} = \left(\frac{13}{18} \right) \left(\frac{18}{13} \right) \left(\frac{25}{7} \right) = \underline{\underline{\frac{25}{7}}}$$

$$338) 0 \div \left(y - \frac{1}{6} \right) \text{ where } y \neq \frac{1}{6} \leftarrow \text{error on text}$$

$$= \frac{0}{y - \frac{1}{6}} = \underline{\underline{0}}$$

$$340) \frac{28 - 9b}{0} \text{ where } 28 - 9b \neq 0$$

$$= \text{undefined } \{D.N.E.\}$$

$$342) \left(\frac{5}{16} n - \frac{3}{7} \right) \div 0 = \frac{\frac{5}{16} n - \frac{3}{7}}{0} = \text{undefined}$$

$$\text{where } \frac{5}{16} n - \frac{3}{7} \neq 0$$

$$344) \quad 9(3w + 7) = 9(3w) + 9(7) = \underline{\underline{27w + 63}}$$

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$$346) \quad 7(y - 13) = 7(y) - 7(13) = \underline{\underline{7y - 91}}$$

$$348) \quad \frac{1}{5}(4m + 20) = \frac{1}{5}(4m) + \frac{1}{5}(20) = \frac{4}{5}m + \frac{20}{5} = \underline{\underline{\frac{4}{5}m + 4}}$$

$$350) \quad 10\left(\frac{3}{10}x - \frac{2}{5}\right) = 10\left(\frac{3}{10}x\right) - 10\left(\frac{2}{5}\right) = \frac{\cancel{10}(3)}{\cancel{10}}x - \frac{\cancel{10}(2)}{\cancel{5}} = \underline{\underline{3x - 4}}$$

$$352) \quad 12\left(\frac{1}{6} + \frac{3}{4}d\right) = 12\left(\frac{1}{6}\right) + 12\left(\frac{3}{4}d\right) = \frac{\cancel{12}(1)}{\cancel{6}} + \frac{\cancel{12}(3)}{\cancel{4}}d = \underline{\underline{2 + 9d}}$$

$$354) \quad 18 \cdot \frac{5}{6}(15h + 24) = \frac{\cancel{18}(5)}{\cancel{6}}(15h + 24) = 15(15h + 24)$$

$$= 15(15h) + 15(24) = \underline{\underline{225h + 360}}$$

$$356) \quad u(v - 10) = u(v) - u(10) = \underline{\underline{uv - 10u}}$$

$$358) \quad (a + 7)x = x(a) + x(7) = \underline{\underline{ax + 7x}}$$

$$360) \quad -9(9a + 4) = (-9)(9a) + (-9)(4) = \underline{\underline{-81a - 36}}$$

$$362) \quad -4(q-7) = (-4)(q) - (-4)(7) = -4q - (-28) = -4q + 28 \quad 1.5 \overline{)4}$$

$$364) \quad -(5p-4) = -1(5p-4) = (-1)(5p) - (-1)(4) = -5p - (-4) = -5p + 4$$

$$366) \quad 18 - 4(x+2) = 18 - ((4)(x) + (4)(2)) = 18 - (4x + 8) \\ = 18 - 4x - 8 = 10 - 4x$$

$$368) \quad 9 - 6(7n-5) = 9 - (6(7n) - 6(5)) = 9 - (42n - 30) \\ = 9 - 42n + 30 = 39 - 42n$$

$$370) \quad 8 - (n-7) = 8 - n + 7 = 15 - n$$

$$372) \quad (4y-1) - (y-2) \\ = 4y - 1 - y + 2 \\ = 3y + 1$$

$$374) \quad 4(6x-1) - (-8) \\ = 4(6x) - 4(1) + 8 \\ = 24x - 4 + 8 \\ = 24x + 4$$

$$376) \quad 9(5u+8) + 2(u-6) \\ = 9(5u) + 9(8) + 2(u) - 2(6) \\ = 45u + 72 + 2u - 12 \\ = 47u + 60$$

$$378) \quad 11(n-7) - 5(n-1) = 11(n-7) + (-5)(n-1)$$

$$= 11(n) + 11(-7) + (-5)(n) + (-5)(-1)$$

$$= 11n + (-77) - 5n + 5 = \underline{\underline{6n - 72}}$$

$$380) \quad 7(3n+9) - (4n-13) = 7(3n+9) + (-1)(4n-13)$$

$$= 7(3n) + 7(9) + (-1)(4n) + (-1)(-13)$$

$$= 21n + 63 - 4n + 13$$

$$= \underline{\underline{17n + 76}}$$