

Opgave 1

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$$a = \frac{2}{3} - \frac{2}{9} = \frac{2 \cdot 3}{3 \cdot 3} - \frac{2}{9} = \frac{6}{9} - \frac{2}{9} = \frac{6-2}{9} \rightarrow \frac{4}{9}$$

$$b = \frac{8}{5} + \frac{3}{4} = \frac{8 \cdot 4}{5 \cdot 4} + \frac{3 \cdot 5}{4 \cdot 5} \rightarrow \frac{47}{20}$$

$$c = \frac{5}{6} + \frac{1}{3} \rightarrow c = \frac{7}{6}$$

$$d = \frac{3}{5} - \frac{5}{3} \rightarrow d = \frac{-16}{15}$$

$$e = \frac{5}{2 \cdot a} + \frac{3}{4 \cdot a} \rightarrow e = \frac{13}{4 \cdot a}$$

$$f = \frac{13}{3} - \frac{1}{6} \rightarrow f = \frac{25}{6}$$

$$g = \frac{3}{2 \cdot a} - \frac{2}{3 \cdot a} \rightarrow g = \frac{5}{6 \cdot a}$$

$$h = \frac{7}{3 \cdot x} - \frac{5}{6} = \frac{42}{18x} - \frac{15x}{18x} = \frac{42-15x}{18x}$$

Opgave 2

$$a = 5 \cdot \frac{2}{3} \rightarrow a = \frac{10}{3}$$

$$b = \frac{8}{5} \cdot 7 \rightarrow b = \frac{56}{5}$$

$$c = \frac{5}{6} \cdot \frac{1}{3} \rightarrow c = \frac{5}{18}$$

$$d = \frac{3}{5} \cdot \frac{-4}{5} \rightarrow d = \frac{-12}{25}$$

$$e = 2 \cdot \frac{5}{2 \cdot a} \rightarrow e = \frac{5}{a}$$

$$f = \frac{13}{3} \cdot \frac{1}{6} \rightarrow f = \frac{13}{18}$$

$$g = \frac{3}{2 \cdot a} \cdot \frac{4 \cdot a}{3} \rightarrow g = 2 \text{ ⚠}$$

$$h = \frac{7}{3 \cdot x} \cdot \frac{9 \cdot x}{14} \rightarrow h = \frac{3}{2} \text{ ⚠}$$

Opgave 3

$$a = 4 \cdot 3 + 5 \rightarrow a = 17$$

$$b = 4 \cdot (5 + 3) \rightarrow b = 32$$

$$c = 2 \cdot 3 - 5 \cdot 7 \rightarrow c = -29$$

$$d = 2 \cdot 7 \cdot (3 - 5) \rightarrow d = -28$$

$$e = 2 \cdot (3 - 5 \cdot 7) \rightarrow e = -64$$

$$f = 7 \cdot (2 \cdot 3 - 5) \rightarrow f = 7$$

$$g = 2 \cdot (4 \cdot 3 + 6) \rightarrow g = 36$$

$$h = 4 \cdot 2 \cdot (3 + 6) \rightarrow h = 72$$

$$i = 4 \cdot (3 + 6 \cdot 2) \rightarrow i = 60$$

$$j = 4 \cdot 3 + 6 \cdot 2 \rightarrow j = 24$$

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Opgave 4

$$a = 3 \cdot 2^2 \rightarrow a = 12$$

$$b = (3 \cdot 2)^2 \rightarrow b = 36$$

$$c = (3 + 2)^2 \rightarrow c = 25$$

$$d = 3 + 2^3 \rightarrow d = 11$$

$$e = 2^3 \cdot 5 \rightarrow e = 40$$

Opgave 5

$$a = 14 \cdot m + 7 \cdot n - (10 \cdot m - 3 \cdot n) \rightarrow a = 4 \cdot m + 10 \cdot n$$

$$b = 5 \cdot (p - 2 \cdot q - r) + 3 \cdot (p - q + 2 \cdot r) \rightarrow b = r + 8 \cdot p - 13 \cdot q$$

$$c = (p + 4) \cdot (p - 4) = p^2 - 16$$

$$d = (q + 4) \cdot (q + 4) - 8 \cdot (q + 2) \rightarrow d = q^2$$

$$e = (r - 4) \cdot (r - 4) - 16 \rightarrow e = r^2 - 8 \cdot r$$

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