5. Scăderea fracțiilor cu același numitor

1/99: $\frac{3}{8} - \frac{1}{4} = \frac{3}{8} - \frac{2}{8} = \frac{1}{8}$

$\frac{7}{8} - \frac{1}{4} = \frac{7}{8} - \frac{2}{8} = \frac{5}{8}$

$\frac{5}{8} - \frac{1}{4} = \frac{5}{8} - \frac{2}{8} = \frac{3}{8}$

$\frac{4}{8} - \frac{1}{4} = \frac{4}{8} - \frac{2}{8} = \frac{2}{8} = \frac{1}{4}$

$\frac{6}{8} - \frac{1}{4} = \frac{6}{8} - \frac{2}{8} = \frac{4}{8} = \frac{1}{2}.$

$\frac{7}{8} - \frac{1}{4} = \frac{7}{8} - \frac{2}{8} = \frac{5}{8}$

2/99: $\frac{3}{4} - \frac{1}{4} = \frac{3-1}{4} = \frac{2}{4} = \frac{1}{2}.$

$\frac{4}{5} - \frac{2}{5} = \frac{4-2}{5} = \frac{2}{5}$

3/99: $\frac{5}{9} - \frac{3}{9} = \frac{2}{9}$ V; $\frac{2}{9} + \frac{3}{9} = \frac{5}{9}$

$\frac{2}{3} - \frac{2}{3} = 0$ V; $0 + \frac{2}{3} = \frac{2}{3}$

$\frac{5}{8} - \frac{2}{8} = \frac{3}{8}$ V; $\frac{3}{8} + \frac{2}{8} = \frac{5}{8}$

$\frac{4}{7} - \frac{2}{7} = \frac{2}{7}$ V; $\frac{2}{7} + \frac{2}{7} = \frac{4}{7}$

$\frac{6}{6} - \frac{4}{6} = \frac{2}{6}$ V; $\frac{2}{6} + \frac{4}{6} = \frac{6}{6}$

$\frac{3}{4} - \frac{1}{4} = \frac{2}{4}$ V; $\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$

4/99: $\frac{2}{8} + \frac{3}{8} - \frac{1}{8} = \frac{2+3-1}{8} = \frac{4}{8} = \frac{1}{2}$

$\frac{4}{7} + \frac{3}{7} - \frac{5}{7} = \frac{4+3-5}{7} = \frac{2}{7}$

$\frac{1}{6} + \frac{4}{6} - \frac{3}{6} = \frac{1+4-3}{6} = \frac{2}{6} = \frac{1}{3}$

$\frac{5}{7} - \frac{4}{7} + \frac{3}{7} = \frac{5-4+3}{7} = \frac{4}{7}$

$\frac{4}{9} + \frac{3}{9} - \frac{2}{9} = \frac{4+3-2}{9} = \frac{5}{9}$

$\frac{4}{8} + \frac{4}{8} - \frac{6}{8} = \frac{2}{8} = \frac{1}{4}$

5/99

$\frac{1}{5} + \frac{4}{5} \boxed{>} \frac{4}{5} - \frac{1}{5}$

$\frac{5}{5} \quad \frac{3}{5}$

$\frac{8}{9} - \frac{7}{9} \boxed{<} \frac{7}{9} + \frac{2}{9}$

$\frac{1}{9} \quad \frac{9}{9}$

$\frac{7}{9} - \frac{6}{9} \boxed{<} \frac{1}{9} + \frac{5}{9}$

$\frac{1}{9} \quad \frac{6}{9}$

$\frac{2}{5} + \frac{1}{5} \boxed{>} \frac{5}{5} - \frac{2}{2}$

$\frac{3}{5} \quad 1-1=0$

$\frac{3}{5} - \frac{1}{5} \boxed{<} \frac{3}{5} + \frac{1}{5}$

$\frac{2}{5} \quad \frac{4}{5}$

$\frac{4}{7} + \frac{2}{7} \boxed{=} \frac{7}{7} - \frac{1}{7}$

$\frac{6}{7} \quad \frac{6}{7}$

6/99.

$a - \frac{1}{2} = \frac{1}{2}$

$a = \frac{1}{2} + \frac{1}{2}$

$a = \frac{2}{2} = 1$

$b - \frac{3}{5} = \frac{1}{5}$

$b = \frac{1}{5} + \frac{3}{5}$

$b = \frac{4}{5}$

$c - \frac{2}{6} = \frac{3}{6}$

$c = \frac{3}{6} + \frac{2}{6}$

$c = \frac{5}{6}$

$\frac{7}{9} - a = \frac{2}{9}$

$a = \frac{7}{9} - \frac{2}{9}$

$a = \frac{5}{9}$

$\frac{5}{6} - b = \frac{1}{6}$

$b = \frac{5}{6} - \frac{1}{6}$

$b = \frac{4}{6}$

$\frac{4}{8} - c = \frac{1}{8}$

$c = \frac{4}{8} - \frac{1}{8}$

$c = \frac{3}{8}$

$a + \frac{1}{2} = \frac{2}{2}$

$a = \frac{2}{2} - \frac{1}{2}$

$a = \frac{1}{2}$

$\frac{3}{5} + b = \frac{4}{5}$

$b = \frac{4}{5} - \frac{3}{5}$

$b = \frac{1}{5}$

$\frac{7}{8} - c + \frac{1}{8} = \frac{2}{8}$

$\frac{7}{8} - c = \frac{2}{8} - \frac{1}{8}$

$\frac{7}{8} - c = \frac{1}{8}$

$c = \frac{7}{8} - \frac{1}{8} = \frac{6}{8}$

7/100. $\frac{71}{100} - \frac{25}{100} = \frac{71-25}{100} = \frac{46}{100}$

$\frac{48}{100} - \frac{19}{100} = \frac{48-19}{100} = \frac{29}{100}$

$\frac{83}{100} - \frac{38}{100} - \frac{25}{100} = \frac{83-38-25}{100} = \frac{45-25}{100} = \frac{20}{100}.$

$\frac{100}{100} - \frac{25}{100} - \frac{50}{100} = \frac{100-25-50}{100} = \frac{75-50}{100} = \frac{25}{100}$

$\frac{43}{100} + \frac{48}{100} - \frac{54}{100} = \frac{43+48-54}{100} = \frac{91-54}{100} = \frac{37}{100}$

$\frac{36}{100} - \frac{18}{100} + \frac{67}{100} = \frac{18}{100} + \frac{67}{100} = \frac{85}{100}$

8/100. d) $x + \frac{25}{100} = \frac{58}{100}$

$x = \frac{58}{100} - \frac{25}{100}$

$x = \frac{33}{100}$

f) $\frac{100}{100} - x = \frac{25}{100}$

$x = \frac{100}{100} - \frac{25}{100}$

$x = \frac{75}{100}$

e) $\frac{75}{100} - x = \frac{37}{100}$

$x = \frac{75}{100} - \frac{37}{100}$

$x = \frac{38}{100}$

9/100. $x + \frac{3}{9} = \frac{8}{9}$

$x = \frac{8}{9} - \frac{3}{9} = \frac{5}{9}$

10/100. $x - \frac{1}{5} = \frac{3}{5}$

$x = \frac{3}{5} + \frac{1}{5}$

$x = \frac{4}{5}$

11/100: $\frac{7}{8} - x = \frac{3}{8}$

$x = \frac{7}{8} - \frac{3}{8}$

$x = \frac{4}{8}$

12/100: $\frac{7}{7} - \left(\frac{2}{7} + \frac{3}{7}\right) = \frac{7}{7} - \frac{5}{7} = \frac{2}{7}$

13/100: $\left(\frac{5}{6} - \frac{2}{6}\right) + \left(\frac{1}{6} + \frac{2}{6}\right) = \frac{3}{6} + \frac{3}{6} = \frac{6}{6}$

14/100: $\left(\frac{3}{10} + \frac{5}{10}\right) - \left(\frac{9}{10} - \frac{7}{10}\right) = \frac{8}{10} - \frac{2}{10} = \frac{6}{10}$

15/100: $\frac{1}{3} \boxed{+} \frac{2}{3} \boxed{-} \frac{1}{3} = \frac{2}{3}$ $\quad \frac{3}{10} \boxed{+} \frac{5}{10} \boxed{-} \frac{6}{10} = \frac{2}{10}$

$\frac{7}{8} \boxed{-} \frac{5}{8} \boxed{+} \frac{3}{8} = \frac{5}{8}$ $\quad \frac{3}{7} \boxed{+} \frac{4}{7} \boxed{-} \frac{5}{7} = \frac{2}{7}$

$\frac{2}{4} \boxed{+} \frac{1}{4} \boxed{+} \frac{1}{4} = \frac{4}{4}$ $\quad \frac{1}{6} \boxed{+} \frac{5}{6} \boxed{-} \frac{6}{6} = 0$

16/101: $\frac{1}{4} + \frac{2}{4} = \frac{3}{4}$ $\quad \frac{6}{9} + \frac{1}{9} = \frac{7}{9}$ $\quad \frac{1}{10} + \frac{5}{10} = \frac{6}{10}$

$\frac{3}{8} + \frac{2}{8} = \frac{5}{8}$ $\quad \frac{3}{6} + \frac{3}{6} = \frac{6}{6}$ $\quad \frac{4}{7} + \frac{2}{7} = \frac{6}{7}$

17/101: $\frac{a}{3} + \frac{1}{3} = \frac{2}{3} \Rightarrow \frac{a+1}{3} = \frac{2}{3} \Rightarrow a+1=2 \Rightarrow a = 2-1 \Rightarrow$

$\Rightarrow a = 1$, deci avem: $\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$

$\frac{2}{5} + \frac{a}{5} = \frac{5}{5} \Rightarrow \frac{2+a}{5} = \frac{5}{5} \Rightarrow 2+a=5 \Rightarrow a = 5-2 \Rightarrow$

$\Rightarrow a = 3$, avem: $\frac{2}{5} + \frac{3}{5} = \frac{5}{5}$

$\frac{a}{3} + \frac{a}{3} = \frac{2}{3} \Rightarrow \frac{a+a}{3} = \frac{2}{3} \Rightarrow \frac{2a}{3} = \frac{2}{3} \Rightarrow 2a = 2 \Rightarrow$

$\Rightarrow a = 2:2 \Rightarrow a = 1$, avem $\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$

$\frac{a}{7}+\frac{1}{7}+\frac{3}{7}=\frac{6}{7} \Rightarrow \frac{a+1+3}{7}=\frac{6}{7} \Rightarrow a+4=6 \Rightarrow$

$\Rightarrow a=6-4 \Rightarrow a=2$, avem $\frac{2}{7}+\frac{1}{7}+\frac{3}{7}=\frac{6}{7}$

$\frac{1}{9}+\frac{a}{9}+\frac{3}{9}=\frac{8}{9} \Rightarrow \frac{1+a+3}{9}=\frac{8}{9} \Rightarrow \frac{a+4}{9}=\frac{8}{9} \Rightarrow$

$\Rightarrow a+4=8 \Rightarrow a=8-4 \Rightarrow a=4$, avem $\frac{1}{9}+\frac{4}{9}+\frac{3}{9}=\frac{8}{9}$

$\frac{17}{100}+\frac{13}{100}-\frac{a}{100}=\frac{15}{100} \Rightarrow \frac{17+13-a}{100}=\frac{15}{100} \Rightarrow \frac{30-a}{100}=\frac{15}{100}$

$\Rightarrow 30-a=15 \Rightarrow a=30-15 \Rightarrow a=15$, avem:

$\frac{17}{100}+\frac{13}{100}-\frac{15}{100}=\frac{15}{100}$

$\frac{a}{5}-\frac{1}{5}=\frac{2}{5} \Rightarrow \frac{a-1}{5}=\frac{2}{5} \Rightarrow a-1=2 \Rightarrow a=2+1 \Rightarrow$

$\Rightarrow a=3$, avem $\frac{3}{5}-\frac{1}{5}=\frac{2}{5}$

$\frac{7}{8}-\frac{a}{8}=\frac{3}{8} \Rightarrow \frac{7-a}{8}=\frac{3}{8} \Rightarrow 7-a=3 \Rightarrow a=7-3 \Rightarrow$

$\Rightarrow a=4$, avem $\frac{7}{8}-\frac{4}{8}=\frac{3}{8}$

$\frac{a}{3}+\frac{a}{3}=\frac{2}{3} \Rightarrow \frac{a+a}{3}=\frac{2}{3} \Rightarrow 2a=2 \Rightarrow a=2:2 \Rightarrow$

$\Rightarrow a=1$, avem $\frac{1}{3}+\frac{1}{3}=\frac{2}{3}$

18/101. a) $\frac{15}{100}-\frac{9}{100}=\frac{6}{100}$

$\frac{26}{100}-\frac{9}{100}=\frac{17}{100}$

$\frac{33}{100}-\frac{9}{100}=\frac{24}{100}$

$\frac{45}{100}-\frac{9}{100}=\frac{36}{100}$

$\frac{75}{100}-\frac{9}{100}=\frac{66}{100}$

$\frac{81}{100}-\frac{9}{100}=\frac{72}{100}$

b) $\frac{15}{100}+\frac{14}{100}=\frac{29}{100}$

$\frac{26}{100}+\frac{14}{100}=\frac{40}{100}$

$\frac{33}{100}+\frac{14}{100}=\frac{47}{100}$

$\frac{45}{100}+\frac{14}{100}=\frac{59}{100}$

$\frac{75}{100}+\frac{14}{100}=\frac{89}{100}$

$\frac{81}{100}+\frac{14}{100}=\frac{95}{100}$

19/101.

$a + \frac{1}{3} = \frac{2}{3}$

$a = \frac{2}{3} - \frac{1}{3}$

$a = \frac{1}{3}$

$\frac{3}{5} + a = \frac{4}{5}$

$a = \frac{4}{5} - \frac{3}{5}$

$a = \frac{1}{5}$

$a + \frac{3}{7} = \frac{5}{7}$

$a = \frac{5}{7} - \frac{3}{7}$

$a = \frac{2}{7}$

$a - \frac{1}{2} = \frac{1}{2}$

$a = \frac{1}{2} + \frac{1}{2}$

$a = \frac{2}{2}$

$\frac{6}{9} - a = \frac{2}{9}$

$a = \frac{6}{9} - \frac{2}{9}$

$a = \frac{4}{9}$

$a - \frac{1}{4} = \frac{2}{4}$

$a = \frac{2}{4} + \frac{1}{4}$

$a = \frac{3}{4}$

$a + \frac{1}{7} + \frac{2}{7} = \frac{6}{7}$

$a + \frac{3}{7} = \frac{6}{7}$

$a = \frac{6}{7} - \frac{3}{7}$

$a = \frac{3}{7}$

$\frac{1}{10} + \frac{7}{10} - a = \frac{4}{10}$

$\frac{8}{10} - a = \frac{4}{10}$

$a = \frac{8}{10} - \frac{4}{10}$

$a = \frac{4}{10}$

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

$a - \frac{2}{4} = \frac{1}{4}$

$a = \frac{1}{4} + \frac{2}{4}$

$a = \frac{3}{4}$

20/101. $\frac{3}{5} - \frac{1}{5} = \frac{2}{5}$ mai mică suprafața plantată cu trandafiri decât cea plantată cu lalele.

21/102. $1-\frac{3}{8}=\frac{8}{8}-\frac{3}{8}=\frac{5}{8}$ suprafața cultivată cu roșii

22/102. $1-\frac{3}{4}=\frac{4}{4}-\frac{3}{4}=\frac{1}{4}$ drum parcurs cu autobuzul

23/102. $1-\frac{5}{7}=\frac{7}{7}-\frac{5}{7}=\frac{2}{7}$ sunt fete

24/102. $1-\left(\frac{4}{9}+\frac{2}{9}\right)=\frac{9}{9}-\frac{6}{9}=\frac{3}{9}$ a parcurs în a treia etapă

25/102. a) Cât a parcurs în a doua zi?

$\frac{2}{10}-\frac{1}{10}=\frac{1}{10}$.

b) Cât a parcurs în a treia zi?

$\frac{2}{10}+\frac{1}{10}=\frac{3}{10}$.

c) Cât a parcurs în a patra zi?

$1-\left(\frac{2}{10}+\frac{1}{10}+\frac{3}{10}\right)=\frac{10}{10}-\frac{6}{10}=\frac{4}{10}$.

26/102. a) Cât a mâncat veverița în a doua lună de iarnă?

$\frac{2}{7}+\frac{1}{7}=\frac{3}{7}$

b) Ce cantitate din provizii i-a mai rămas pentru a treia lună de iarnă?

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

27/102. a) Câte caiete de dictando s-au vândut?

$\frac{62}{100}-\frac{28}{100}=\frac{34}{100}$

b) Câte vocabulare s-au vândut?

$1-\left(\frac{62}{100}+\frac{34}{100}\right)=\frac{100}{100}-\frac{96}{100}=\frac{4}{100}$

28/102 a) Câte femei (reprezentate prin fracție) au fost la meci?

$$\frac{70}{100} - \frac{45}{100} = \frac{25}{100}$$

b) Câți copii au fost la meci?

$$1 - \left(\frac{70}{100} + \frac{25}{100}\right) = \frac{100}{100} - \frac{95}{100} = \frac{5}{100}.$$