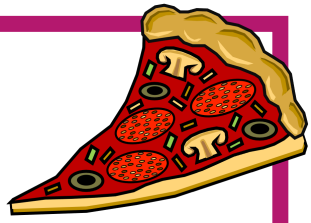
PIZZAREGNING

Brøkregning
Niveau 4

Addition og subtraktion

- **Forskellige nævnere**
- **Forlænge/forkorte**

PIZZAREGNING

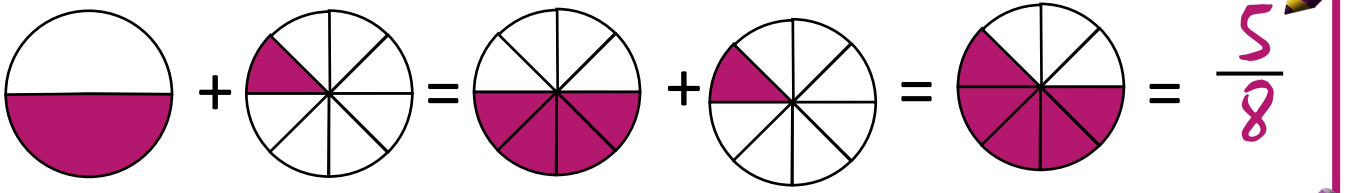


$$\frac{Top}{Nederdel} = \frac{Tæller}{Nævner}$$

Forskellig nederdel
Ikke fælles nævner

Samme nederdel
Fælles nævner

PIZZAREGNING



$\frac{1}{2} + \frac{1}{8} = \frac{1 \cdot 4}{2 \cdot 4} + \frac{1}{8} = \frac{4}{8} + \frac{1}{8} = \frac{5}{8}$

Forlæng til fælles nævner

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

$\frac{1}{9} + \frac{2}{3} = \frac{1}{9} + \frac{2 \cdot 3}{3 \cdot 3} = \_\_ + \_\_ = \_\_$

$\frac{1}{2} + \frac{1}{12} = \_\_ + \_\_ = \_\_ + \_\_ = \_\_$

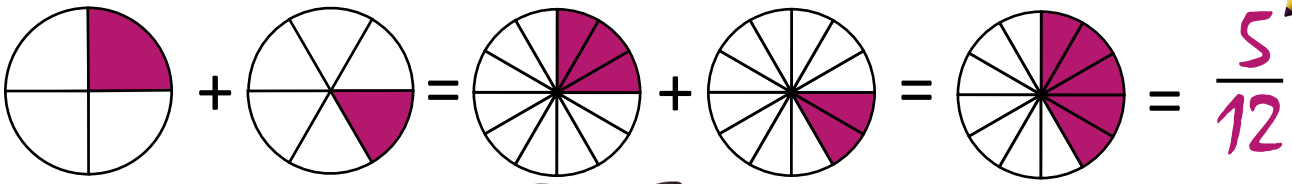
$\frac{5}{6} + \frac{3}{18} = \_\_ + \_\_ = \_\_ + \_\_ = \_\_$

$\frac{3}{8} + \frac{1}{4} = \_\_ + \_\_ = \_\_ + \_\_ = \_\_$

$\frac{1}{3} + \frac{2}{9} = \_\_ + \_\_ = \_\_ + \_\_ = \_\_$

$\frac{1}{4} + \frac{7}{16} = \_\_ + \_\_ = \_\_ + \_\_ = \_\_$

PIZZAREGNING



Forlæng til fælles nævner:

$$\frac{1}{4} + \frac{2}{3} = \frac{1 \cdot 3}{4 \cdot 3} + \frac{2 \cdot 4}{3 \cdot 4} = \frac{3}{12} + \frac{8}{12} = \frac{11}{12}$$

Brug sommerfugle-metoden

Pas på! Der er både + og -

Fællesnævner: _____

$\frac{4}{9} - \frac{1}{8} =$

Fællesnævner: _____

$\frac{1}{7} + \frac{5}{6} =$

Fællesnævner: _____

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

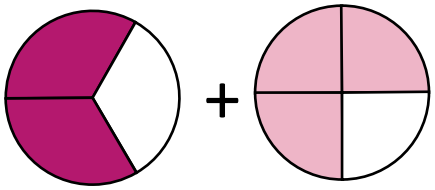
Fællesnævner: _____

$\frac{3}{4} - \frac{1}{3} =$

Fællesnævner: _____

$\frac{2}{3} + \frac{1}{5} =$

PIZZAREGNING



$$\frac{2}{3} + \frac{3}{4} = \frac{2 \cdot 4}{3 \cdot 4} + \frac{3 \cdot 3}{4 \cdot 3} = \frac{8}{12} + \frac{9}{12} = 1\frac{5}{4}$$

$$\frac{6}{7} + \frac{2}{9} = \frac{6 \cdot 9}{7 \cdot 9} + \frac{2 \cdot 7}{9 \cdot 7} = \frac{54}{63} + \frac{14}{63} = \frac{68}{63} = 1\frac{5}{63}$$

$$\frac{4}{7} + \frac{2}{3} = \frac{4 \cdot 3}{7 \cdot 3} + \frac{2 \cdot 7}{3 \cdot 7} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{7}{6} + \frac{3}{9} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

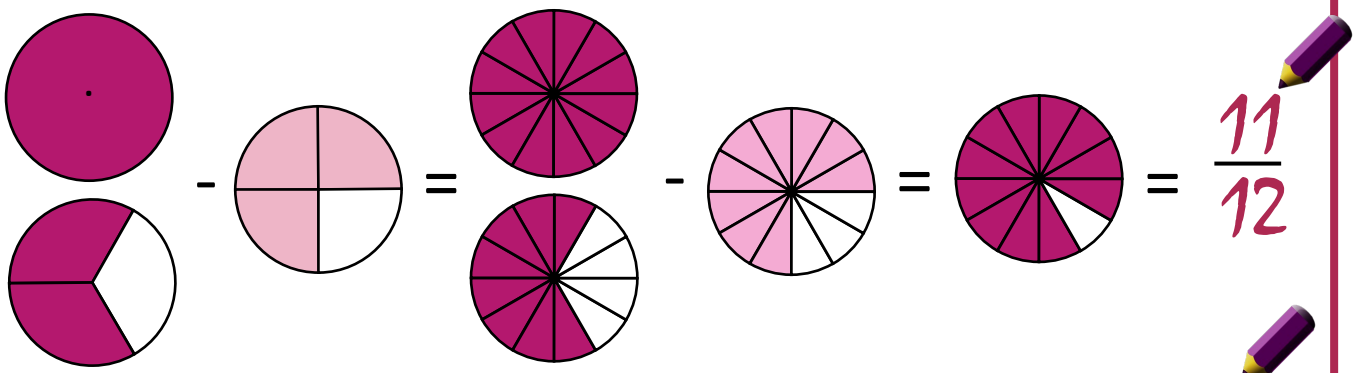
$$\frac{6}{8} + \frac{3}{6} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{4}{5} + \frac{1}{3} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{1}{4} + \frac{6}{7} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{5}{9} + \frac{4}{5} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

PIZZAREGNING



$$1\frac{2}{3} - \frac{3}{4} = \frac{5}{3} \times \frac{3}{4} = \frac{20}{12} - \frac{9}{12} = \frac{11}{12}$$

$$1\frac{1}{2} - \frac{8}{9} = \frac{3}{2} \times \frac{8}{9} = \frac{27}{18} - \frac{16}{18} = \frac{11}{18}$$

$$1\frac{1}{3} - \frac{6}{7} = \frac{4}{3} \times \frac{6}{7} = \text{—} - \text{—} = \text{—}$$

$$1\frac{1}{4} - \frac{2}{7} = \text{—} - \text{—} = \text{—} - \text{—} = \text{—}$$

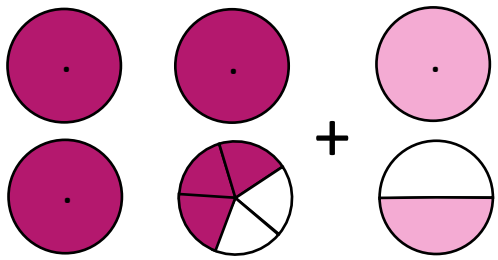
$$1\frac{1}{4} - \frac{2}{5} = \text{—} - \text{—} = \text{—} - \text{—} = \text{—}$$

$$1\frac{1}{3} - \frac{7}{9} = \text{—} - \text{—} = \text{—} - \text{—} = \text{—}$$

$$1\frac{1}{8} - \frac{1}{2} = \text{—} - \text{—} = \text{—} - \text{—} = \text{—}$$

$$1\frac{3}{5} - \frac{6}{7} = \text{—} - \text{—} = \text{—} - \text{—} = \text{—}$$

PIZZAREGNING



$= 5\frac{1}{10}$

$3\frac{3}{5} + 1\frac{1}{2} = 4 + \frac{3}{5} + \frac{1}{2} = 4 + \frac{6}{10} + \frac{5}{10} = 5\frac{1}{10}$

$5\frac{1}{4} + 2\frac{2}{3} = \_\_ + \frac{1}{4} + \frac{2}{3} = \_\_ + \frac{3}{12} + \frac{8}{12} = \_\_\ \frac{11}{12}$

$3\frac{1}{4} + 4\frac{3}{5} = \_\_ + \frac{1}{4} + \frac{3}{5} = \_\_ + \frac{\_\_}{20} + \frac{\_\_}{20} = \_\_\ \frac{\_\_}{\_\_}$

$1\frac{1}{3} + 4\frac{4}{7} = \_\_ + \frac{\_\_}{\_\_} + \frac{\_\_}{\_\_} = \_\_ + \frac{\_\_}{\_\_} + \frac{\_\_}{\_\_} = \_\_\ \frac{\_\_}{\_\_}$

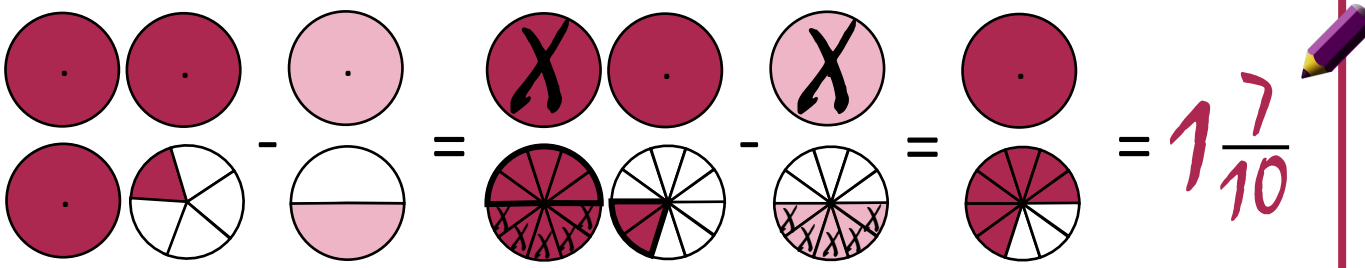
$4\frac{1}{8} + 2\frac{4}{7} = \_\_ + \frac{\_\_}{\_\_} + \frac{\_\_}{\_\_} = \_\_ + \frac{\_\_}{\_\_} + \frac{\_\_}{\_\_} = \_\_\ \frac{\_\_}{\_\_}$

$7\frac{2}{9} + 5\frac{1}{2} = \_\_ + \frac{\_\_}{\_\_} + \frac{\_\_}{\_\_} = \_\_ + \frac{\_\_}{\_\_} + \frac{\_\_}{\_\_} = \_\_\ \frac{\_\_}{\_\_}$

$5\frac{2}{7} + 3\frac{2}{3} = \_\_ + \frac{\_\_}{\_\_} + \frac{\_\_}{\_\_} = \_\_ + \frac{\_\_}{\_\_} + \frac{\_\_}{\_\_} = \_\_\ \frac{\_\_}{\_\_}$

$2\frac{3}{8} + 1\frac{1}{3} = \_\_ + \frac{\_\_}{\_\_} + \frac{\_\_}{\_\_} = \_\_ + \frac{\_\_}{\_\_} + \frac{\_\_}{\_\_} = \_\_\ \frac{\_\_}{\_\_}$

PIZZAREGNING



$= 1\frac{7}{10}$

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

$= 1 + (\frac{6}{5} \times \frac{1}{2}) = 1 + (\frac{12}{10} - \frac{5}{10}) = 1\frac{7}{10}$

$4\frac{1}{6} - 1\frac{3}{4} = 3\frac{7}{6} - 1\frac{3}{4} = 2 + (\frac{7}{6} \times \frac{3}{4}) = 2 + (\frac{28}{24} - \frac{18}{24}) = 2\frac{10}{24} = 2\frac{5}{12}$

Kan forkortes

$3\frac{2}{5} - 1\frac{2}{3} = 2\frac{7}{5} - 1\frac{2}{3} = 2 + (\frac{7}{5} \times \frac{2}{3}) = 2 + (\frac{21}{15} - \frac{10}{15}) = 2\frac{11}{15} = \_\_$

Kan ikke forkortes

$4\frac{2}{8} - 1\frac{2}{3} = 3\frac{10}{8} - 1\frac{2}{3} = \_\_ + (\_\_ \times \_\_) = \_\_ + (\_\_ - \_\_) = \_\_ = \_\_$

Kan forkortes

$7\frac{1}{12} - 3\frac{3}{4} = 6\frac{13}{12} - \_\_ = \_\_ + (\_\_ \times \_\_) = \_\_ + (\_\_ - \_\_) = \_\_ = \_\_$

Kan den forkortes?

$2\frac{3}{5} - \frac{3}{9} = \_\_ - \_\_ = \_\_ + (\_\_ \times \_\_) = \_\_ + (\_\_ - \_\_) = \_\_ = \_\_$

Kan den forkortes?

$2\frac{1}{3} - 1\frac{8}{9} = \_\_ - \_\_ = \_\_ + (\_\_ \times \_\_) = \_\_ + (\_\_ - \_\_) = \_\_ = \_\_$

Kan den forkortes?

$1\frac{2}{6} - \frac{6}{7} = \_\_ - \_\_ = \_\_ + (\_\_ \times \_\_) = \_\_ + (\_\_ - \_\_) = \_\_ = \_\_$

Kan den forkortes?

$1\frac{2}{7} - \frac{1}{3} = \_\_ - \_\_ = \_\_ + (\_\_ \times \_\_) = \_\_ + (\_\_ - \_\_) = \_\_ = \_\_$

Kan den forkortes?

PIZZAREGNING

Vælg selv metode –

Pas på! Der er både + og – .
Forkort når det er muligt

$2\frac{1}{3} + 3\frac{1}{4} = \_\_ + \_\_ + \_\_ = \_\_ + \_\_ + \_\_ = \_\_ \_\_$

$\frac{4}{7} + \frac{1}{3} = \_\_ + \_\_ = \_\_ + \_\_ = \_\_ = \_\_ \_\_$

$5\frac{1}{3} + 6\frac{4}{7} = \_\_ + \_\_ + \_\_ = \_\_ + \_\_ + \_\_ = \_\_ \_\_$

$1\frac{1}{9} - \frac{4}{7} = \_\_ - \_\_ = \_\_ - \_\_ = \_\_$

$\frac{1}{12} + \frac{3}{4} = \_\_ + \_\_ = \_\_ + \_\_ = \_\_$

$1\frac{1}{4} - \frac{1}{3} = \_\_ - \_\_ = \_\_ - \_\_ = \_\_$

$2\frac{7}{8} + 1\frac{2}{3} = \_\_ + \_\_ + \_\_ = \_\_ + \_\_ + \_\_ = \_\_ \_\_$

$\frac{4}{5} + \frac{1}{3} = \_\_ + \_\_ = \_\_ + \_\_ = \_\_ = \_\_ \_\_$

$1\frac{1}{9} - \frac{5}{6} = \_\_ - \_\_ = \_\_ - \_\_ = \_\_$

$\frac{3}{5} + \frac{1}{10} = \_\_ + \_\_ = \_\_ + \_\_ = \_\_$

PIZZAREGNING

Vælg selv metode –

Pas på! Der er både + og – .
Forkort når det er muligt

$3\frac{1}{4} + 2\frac{1}{3} = \_\_ + \_\_ + \_\_ = \_\_ + \_\_ + \_\_ = \_\_ \_\_$

$3\frac{2}{5} - \frac{7}{8} = \_\_ \_\_ - \_\_ = \_\_ \_\_ - \_\_ = \_\_ \_\_$

$3\frac{1}{4} + 3\frac{1}{5} = \_\_ + \_\_ + \_\_ = \_\_ + \_\_ + \_\_ = \_\_ \_\_$

$7\frac{1}{9} + 2\frac{3}{4} = \_\_ + \_\_ + \_\_ = \_\_ + \_\_ + \_\_ = \_\_ \_\_$

$3\frac{1}{3} - 1\frac{7}{9} = \_\_ \_\_ - \_\_ \_\_ = \_\_ + (\_\_ - \_\_) = \_\_ + (\_\_ - \_\_) = \_\_ \_\_ = \_\_ \_\_$

$4\frac{1}{8} + 2\frac{1}{4} = \_\_ + \_\_ + \_\_ = \_\_ + \_\_ = \_\_ \_\_$

$8\frac{1}{7} + 2\frac{2}{8} = \_\_ + \_\_ + \_\_ = \_\_ + \_\_ + \_\_ = \_\_ \_\_$

$5\frac{1}{7} - \frac{4}{5} = \_\_ \_\_ - \_\_ = \_\_ \_\_ - \_\_ = \_\_ \_\_$

$1\frac{5}{9} + 2\frac{1}{3} = \_\_ + \_\_ + \_\_ = \_\_ + \_\_ = \_\_ \_\_$

$3\frac{1}{3} - 1\frac{7}{9} = \_\_ \_\_ - \_\_ \_\_ = \_\_ + (\_\_ - \_\_) = \_\_ + (\_\_ - \_\_) = \_\_ \_\_ = \_\_ \_\_$

PIZZAREGNING

Vælg selv metode –

Pas på! Der er både + og – .
Forkort når det er muligt

$1\frac{2}{7} - \frac{6}{7} =$

$\frac{1}{7} + \frac{5}{9} =$

$4\frac{2}{5} - 2\frac{7}{9} =$

$2\frac{4}{9} - \frac{5}{7} =$

$3\frac{1}{8} + 5\frac{4}{7} =$

$3\frac{1}{7} - \frac{4}{9} =$

$1\frac{5}{8} + 2\frac{6}{7} =$

$4\frac{5}{6} + 1\frac{4}{7} =$

$3\frac{1}{6} - 1\frac{8}{9} =$

$\frac{7}{9} + \frac{5}{9} =$

PIZZAREGNING

Vælg selv metode –

Pas på! Der er både + og – .
Forkort når det er muligt

$5\frac{5}{8} + 1\frac{4}{7} =$

$\frac{6}{7} + \frac{5}{6} =$

$7\frac{1}{5} - \frac{5}{9} =$

$2\frac{1}{5} - \frac{8}{9} =$

$2\frac{7}{8} + 1\frac{4}{7} =$

$3\frac{1}{9} - \frac{5}{6} =$

$\frac{7}{12} + \frac{5}{6} =$

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

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

$4\frac{2}{7} - 3\frac{8}{9} =$

PIZZAREGNING

Vælg selv metode –

Pas på! Der er både + og – .
Forkort når det er muligt

$2\frac{1}{6} - \frac{4}{5} =$

$\frac{7}{12} + \frac{3}{4} =$

$1\frac{2}{7} - \frac{7}{9} =$

$3\frac{3}{8} + 2\frac{3}{4} =$

$2\frac{7}{8} + 2\frac{4}{7} =$

$3\frac{1}{5} - 2\frac{5}{6} =$

$5\frac{3}{4} - 1\frac{7}{9} =$

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

$4\frac{5}{6} + 2\frac{9}{12} =$

$5\frac{4}{7} - 1\frac{1}{9} =$

PIZZAREGNING

Vælg selv metode –

Pas på! Der er både + og – .
Forkort når det er muligt

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

$1\frac{1}{3} - \frac{6}{7} =$

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

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

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

$3\frac{1}{6} - 1\frac{5}{7} =$

$3\frac{2}{9} - 1\frac{5}{6} =$

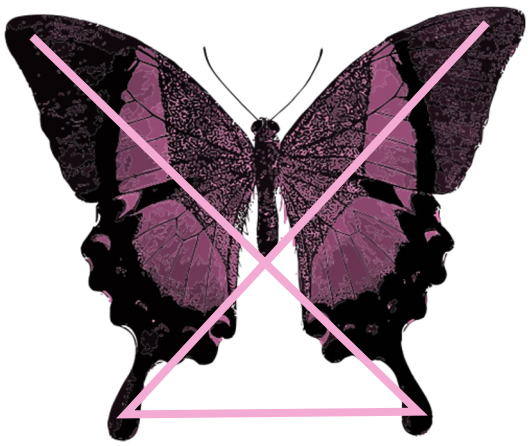
$1\frac{4}{5} + 2\frac{3}{4} =$

$2\frac{1}{7} - 1\frac{5}{6} =$

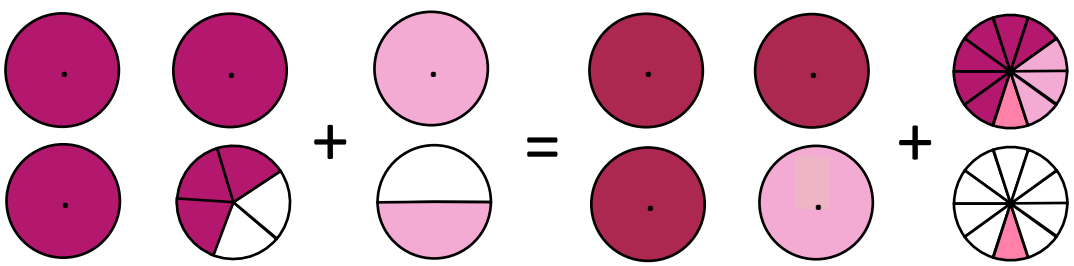
$4\frac{2}{5} - 1\frac{6}{7} =$

PIZZAREGNING

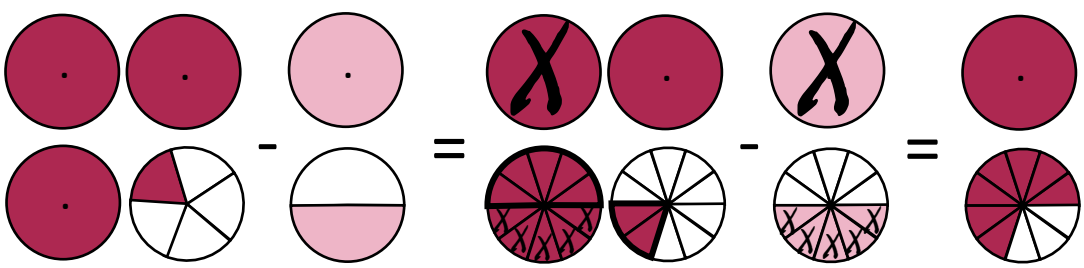
Sommerfugle-metoden:



1. Find fælles nævner
2. Forlæng til fælles nævner
3. Adder eller subtraher tællerne
4. Forkort hvis det er muligt



$$3\frac{3}{5} + 1\frac{1}{2} = 4 + \frac{3}{5} + \frac{1}{2} = 4 + \frac{6}{10} + \frac{5}{10} = 5\frac{1}{10}$$



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

$$= 1 + \left(\frac{6}{5} - \frac{1}{2}\right) = 1 + \left(\frac{12}{10} - \frac{5}{10}\right) = 1\frac{7}{10}$$

PIZZAREGNING

Brøkregning
Niveau 4

Addition og subtraktion

- **Forskellige nævnere**
- **Forlænge/forkorte**

_____

Elevunderskrift

_____

Lærerunderskrift