

## Rozgrzewka

1 Wykonaj działania. Możesz liczyć części na rysunku.

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



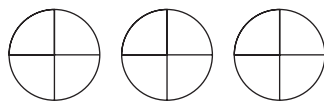
$$\frac{2}{4} + \frac{6}{4} = \frac{8}{4} = 2$$

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

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

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

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



$$\frac{2}{4} + \frac{8}{4} = \frac{10}{4} = 2\frac{2}{4}$$

$$\frac{2}{4} + \frac{5}{4} = \frac{7}{4} = 1\frac{3}{4}$$

$$\frac{2}{4} + \frac{9}{4} = \frac{11}{4} = 2\frac{3}{4}$$

2 Wykonaj działania. Możesz liczyć części na rysunku. Sprawdź, czy wyniki w obu kolumnach są takie same.

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



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

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

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

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

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



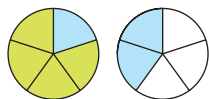
$$1\frac{2}{5} - \frac{3}{5} = \frac{4}{5}$$

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

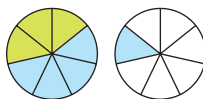
$$1\frac{3}{5} - \frac{3}{5} = \frac{5}{5}$$

## Trening

3 Pomaluj dwoma kolorami odpowiednie części kół i zapisz wyniki dodawania.



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



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



$$3 + 1 = 4$$

4 a) Dodaj ułamki. Wyniki zapisz w postaci ułamków nieskracalnych.

$$\frac{3}{10} + \frac{3}{10} = \frac{6}{10} = \frac{3}{5} \quad \frac{1}{9} + \frac{2}{9} = \frac{3}{9} = \frac{1}{3} \quad \frac{1}{10} + \frac{7}{10} = \frac{8}{10} = \frac{4}{5} \quad \frac{4}{15} + \frac{2}{15} = \frac{6}{15} = \frac{2}{5}$$

b) Dodaj ułamki. Wyniki przedstaw w postaci liczb mieszanych.

$$\frac{4}{7} + \frac{5}{7} = \frac{9}{7} = 1\frac{2}{7} \quad \frac{5}{9} + \frac{8}{9} = \frac{13}{9} = 1\frac{4}{9} \quad \frac{3}{4} + \frac{3}{4} = \frac{6}{4} = 1\frac{2}{4} \quad \frac{3}{8} + \frac{7}{8} = \frac{10}{8} = 1\frac{2}{8}$$

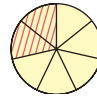
5 a) Pokoloruj odpowiednie części kół i zapisz wyniki odejmowania.



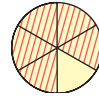
$$1 - \frac{2}{3} = \underline{\frac{1}{3}}$$



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



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



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

b) Oblicz.

$$1 - \frac{5}{8} = \underline{\frac{3}{8}}$$

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

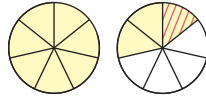
$$1 - \frac{5}{10} = \underline{\frac{5}{10}}$$

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

6 a) Pokoloruj odpowiednie części kół i zapisz wyniki odejmowania.



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



$$1\frac{3}{7} - \frac{1}{7} = \underline{1\frac{2}{7}}$$



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

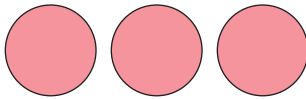
b) Oblicz.

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

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

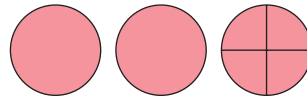
$$5\frac{5}{7} - 2\frac{2}{7} = \underline{3\frac{3}{7}}$$

7 Pokoloruj odpowiednie części figur i uzupełnij obliczenia według wzoru.



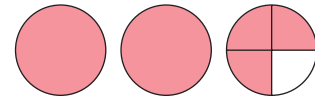
$$3 - \frac{1}{4}$$

=

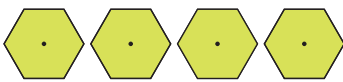


$$2\frac{3}{4} - \frac{1}{4}$$

=

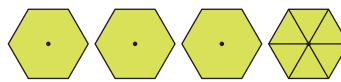


$$2\frac{3}{4}$$



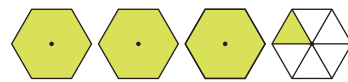
$$4 - \frac{5}{6}$$

=



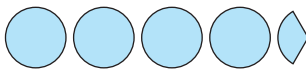
$$3\frac{5}{6} - \frac{5}{6}$$

=



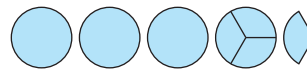
$$3\frac{1}{6}$$

8 Pokoloruj odpowiednie części kół i uzupełnij obliczenia według wzoru.



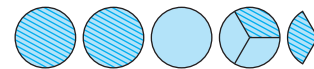
$$4\frac{1}{3} - 2\frac{2}{3}$$

=



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

=

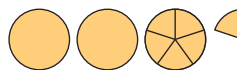


$$1\frac{2}{3}$$



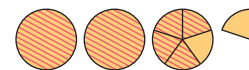
$$3\frac{1}{5} - 2\frac{4}{5}$$

=



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

=



$$\frac{2}{5}$$

9 Oblicz, zamieniając jedną całość na części.

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

$$7\frac{3}{8} - 2\frac{7}{8} = \underline{6\frac{11}{8} - 2\frac{7}{8} = 4\frac{4}{8}}$$

$$4\frac{2}{9} - 1\frac{5}{9} = \underline{3\frac{11}{9} - 1\frac{5}{9} = 2\frac{6}{9}}$$

10 Wykonaj działania. Połącz każde działanie z właściwym wynikiem. Zapisz w każdym okienku, ile działań dało taki wynik.

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

$$\frac{1}{2} \quad \boxed{1}$$

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

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

$$3\frac{1}{4} \quad \boxed{4}$$

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

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

$$2\frac{1}{2} \quad \boxed{2}$$

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

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

$$2\frac{1}{4} \quad \boxed{3}$$

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

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

$$3\frac{2}{7} \quad \boxed{2}$$

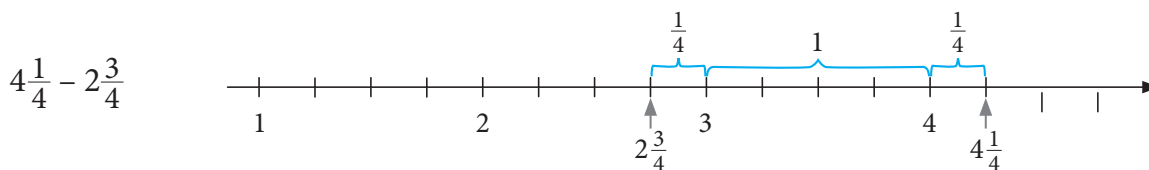
$$4 - \frac{3}{4} = \underline{3\frac{1}{4}}$$

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

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

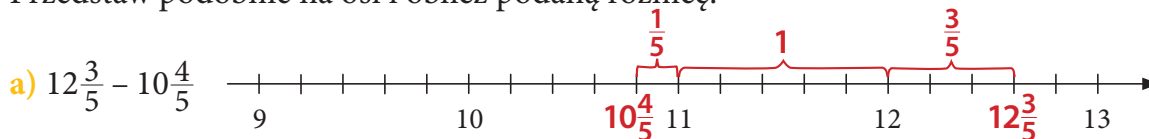
### Dla dociekliwych

11 Popatrz, jak można przedstawić różnicę na osi liczbowej.

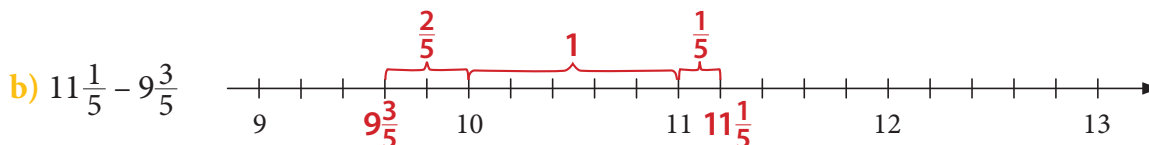


$$4\frac{1}{4} - 2\frac{3}{4} = \frac{1}{4} + 1 + \frac{1}{4} = 1\frac{2}{4} = 1\frac{1}{2}$$

Przedstaw podobnie na osi i oblicz podaną różnicę.



$$12\frac{3}{5} - 10\frac{4}{5} = \frac{1}{5} + 1 + \frac{3}{5} = 1\frac{4}{5}$$



$$11\frac{1}{5} - 9\frac{3}{5} = \frac{2}{5} + 1 + \frac{1}{5} = 1\frac{3}{5}$$