Addition af brøker

1/2+4/7

1 / 2 + 4 / 7

Input:

1 / 2 + 4 / 7

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

Exact result: Hide steps

15 / 14

$$\frac{15}{14}$$

Possible intermediate steps:

Simplify the following:

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

Put $\frac{1}{2}+\frac{4}{7}$ over the common denominator 14. $\frac{1}{2}+\frac{4}{7}=\frac{7}{14}+\frac{2\times4}{14}$:

$$\frac{7}{14}+\frac{2\times4}{14}$$

$2\times4=8$:

$$\frac{7}{14}+\frac{\boxed{8}}{14}$$

$\frac{7}{14}+\frac{8}{14}=\frac{7+8}{14}$:

$$\frac{7+8}{14}$$

$7+8=15$:

Answer:

$$\frac{\boxed{15}}{14}$$

Decimal approximation: More digits

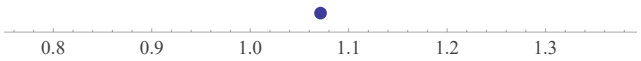
N[1 / 2 + 4 / 7, 79]

1.0714285714285714285714285714285714285714285714285714285714285714…

Addition af brøker

Number line:

```
NumberLinePlot[15 / 14]
```



Repeating decimal:

```
RealDigits[15 / 14]
```

$1.0\overline{714285}$ (period 6)

Mixed fraction: Hide steps

```
{IntegerPart[15 / 14], FractionalPart[15 / 14]}
```

$1\frac{1}{14}$

Possible intermediate steps:

Convert to a mixed number:

$\frac{15}{14}$

Divide 15 by 14:

$14\overline{)15}$

---

14 goes into 15 at most one time:

$$\begin{array}{r} 1 \\ 14\overline{)15} \\ -14 \\ \hline 1 \end{array}$$

Read off the results. The quotient is the number at the top and the remainder is the number at the bottom:

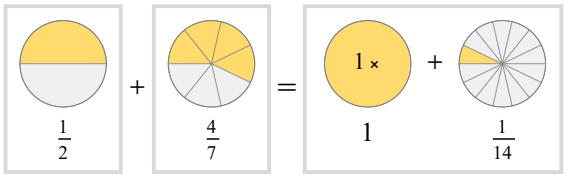
$$\begin{array}{rl} 1 & \text{(quotient)} \\ 14\overline{)15} & \\ -14 & \\ \hline 1 & \text{(remainder)} \end{array}$$

The quotient of $\frac{15}{14}$ is 1 with remainder 1, so:

Answer:

$1\frac{1}{14}$

Pie chart:



Continued fraction:

Linear form

```
ContinuedFraction[15/14, 100]
```

$$1+\frac{1}{14}$$

Egyptian fraction expansion:

$$1+\frac{1}{14}$$

Out[22]= $\frac{15}{14}$