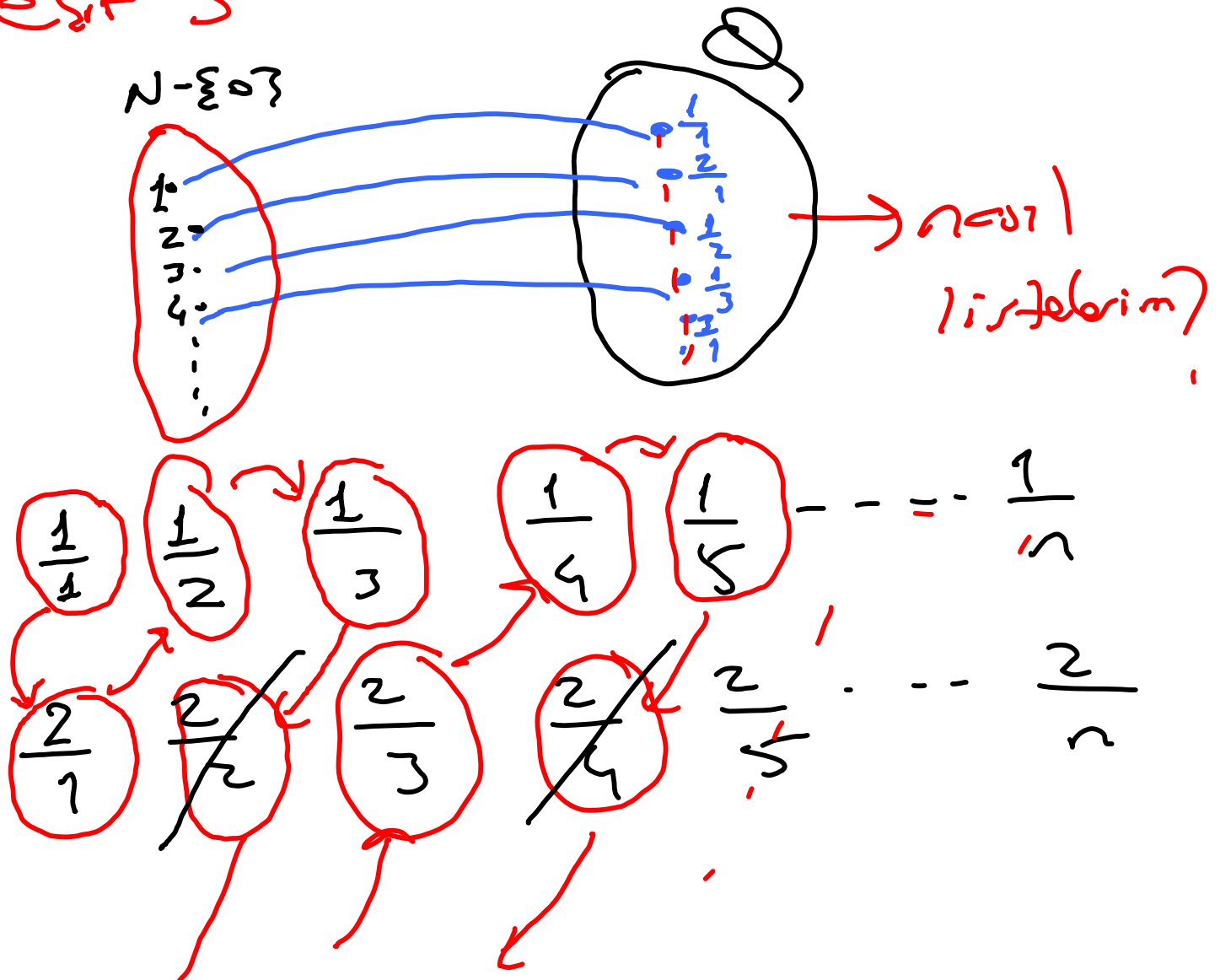


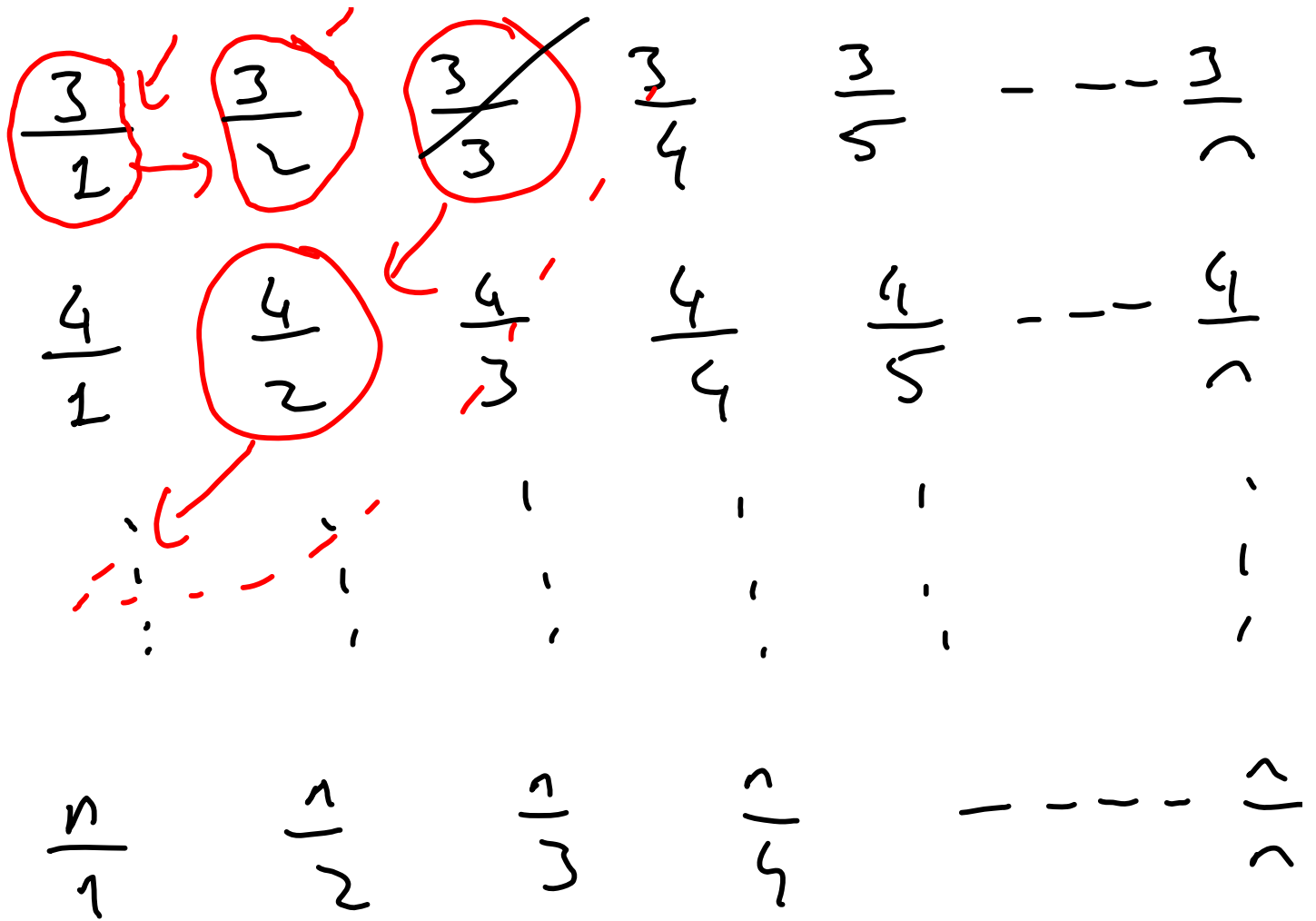
13.03.2023

Örn: Rasyonel sayılar (\mathbb{Q}) kümesi

Sayıldır sonsuz bir kümedir.

↳ Rasyonel sayıların bir alt kümesine
bitiş girilebilir olması gereklidir.





Q 'da ki sayılar, listelenmiştir
 der deleyi, Q sayılabılır diye
 bir kümedir.

Aritmetik İşlemler

Örnek: $(124)_5 + (562)_7 = (?)_3$

Örnek: $(1572)_8 - (662)_8 = ?$

Örnek: $(5A3B6)_{16} + (F25E4)_{16} + (1CB25)_{16} = ?$

Cevap 1:

$$\begin{array}{r} (124)_5 \\ + (562)_7 \\ \hline (\quad)_3 \end{array}$$

örnek tabandan
toplama, çıkarma
veya çarpma
yapılabilir.

$$(124)_5 = 1 \cdot 5^2 + 2 \cdot 5^1 + 4 \cdot 5^0 = 39$$

$$(562)_7 = \underset{245}{5 \cdot 7^2} + \underset{42}{6 \cdot 7^1} + \underset{2}{2 \cdot 7^0} = 289$$

$$289 + 39 = 328$$

$$\begin{array}{r|l}
 328 & 3 \\
 \hline
 327 & 109 \\
 \hline
 & 108 \\
 & \hline
 & 36 \\
 & \hline
 & 12 \\
 & \hline
 & 4 \\
 & \hline
 & 1
 \end{array}$$

The remainders from the divisions are circled and connected by arrows, reading from bottom to top: 1, 1, 0, 0, 1, 1.

$$\boxed{328 = (110011)_3}$$

Задача 2:

$$\begin{array}{r}
 (1572)_8 \\
 - (662)_8 \\
 \hline
 (710)_8
 \end{array}$$

Ans

$$\begin{array}{ccccccc} 4 & 2 & 9 & 20 & 28 & 11 & \\ (5 & A & 3 & B & 6)_{16} \end{array}$$

$$(F \ 25 \ E \ 4)_{16}$$

$$\begin{array}{r} (1 \ C \ D \ 25)_{16} \\ + \\ \hline (1 \ 6 \ 9 \ 4 \ B \ F)_{16} \\ \text{=====} \end{array}$$

$$A \rightarrow 10$$

$$B \rightarrow 11$$

$$C \rightarrow 12$$

$$D \rightarrow 13$$

$$E \rightarrow 14$$

$$F \rightarrow 15$$

$$35 = (1 \ 0 \ 0 \ 0 \ 1 \ 1)_2$$

$$\begin{array}{ccccccc} 2^5 & 2^4 & 2^3 & 2^2 & 2^1 & 2^0 & \end{array}$$

→ program ?
size code ?

