

$\{10, 20, 30\}, \{1, 2, 3, \dots, 10\}, \{1, 2, \dots, 10\}, \{1, 2, \dots, 10\}, \{1, 2, \dots, 10\}, \{1, 2, \dots, 10\}$
 $\text{میانگین} = \frac{5}{10} = \frac{10 + 10}{2 \times 10} = 1$

$$ax^2 + bx + c \rightarrow az = \frac{1}{r_0} a(-12) = -\frac{1}{5} \Rightarrow a_0 = 12, ar = 1r, r \rightarrow \begin{cases} -\frac{1}{5}(12) + b + c = 12 \\ -\frac{1}{5}(12) + rb + c = 1r, r \end{cases}$$

$$-\frac{1}{5}(12) + b + c = 12$$

$$-\frac{1}{5}(12) + rb + c = 1r, r$$

$$\frac{12}{5} - rb = -12, r \rightarrow b = 12$$

$$ax = -\frac{1}{5}x^2 + 12x - 1$$

$$\frac{a_1b}{a_1} = \frac{-\frac{1}{5}(12) + 12(12) - 1}{1} = -\frac{1}{5}(1) + 12(1) - 1$$

$$\frac{12}{5} = \frac{12}{5} = \frac{12}{5}$$

$a(a+d)^r = b(a+rd)(a+d)ad(a+v) \rightarrow ea^r + ad^r + rad = ba^r + load + wa$
 $+wad$

$\rightarrow 0 = ra^r - ad^r + ad \rightarrow (ra - rd)(a + rd) = 0$

$\begin{cases} \textcircled{1} az = wd \\ \textcircled{2} az = rd \end{cases} \leadsto \frac{az}{d} = \frac{a+wd}{d}$

$a, b, c \xrightarrow{\text{sub}} b, \frac{a}{v}, \frac{c}{z} \leadsto a+d, \frac{a}{v}, \frac{a+vd}{z}$

$\downarrow \quad \downarrow \quad \downarrow$
 $a \quad a+d \quad a+vd$

$\frac{\frac{a}{v}}{\frac{a+d}{1}} = \frac{\frac{a+vd}{z}}{\frac{a}{v}} \leadsto \frac{a}{va+vd}$

$\left[\frac{a}{v} = \frac{wd + wd}{d} \right] \textcircled{1}$
 $\left[1 = \frac{-vd + wd}{z} \right] \textcircled{2}$

$v(rd^r) = e(-wad) \rightarrow d(rd + va) = 0$

$\frac{va+ed}{za} \leadsto za^r = ea^r + vad^r + rad$

$\begin{cases} \textcircled{1} d=0 \text{ is wrong} \\ \textcircled{2} vd + wa = 0 \leadsto a = -\frac{vd}{w} \end{cases} \leadsto \frac{a}{a+d} = \frac{-\frac{d}{w}}{-\frac{d}{w} + d} = \frac{-\cancel{d}}{\cancel{d} + d} = \frac{-1}{1+1} = -\frac{1}{2}$

$r q = v a (-1) = -v$

$$a \circ b \circ c \xrightarrow{\text{associativity}} (a \circ b) \circ c \rightarrow (a \circ b) \circ c \rightarrow a \circ (b \circ c) \rightarrow a \circ (c \circ b) \rightarrow a \circ c \circ b \rightarrow a \circ b \circ c$$

$$\frac{a \circ b}{a \circ c} = \frac{a \circ b}{a \circ c} = b \circ c = (-1)^b = -1 \quad \text{②}$$

$$a \circ b - \varepsilon a + \varepsilon a \circ b = 0$$

$$a \circ (b-1)(b+1)$$

$$\begin{cases} \text{① } a=0 \text{ } \checkmark \\ \text{② } b=1 \text{ } \checkmark \\ \text{③ } b=-1 \text{ } \checkmark \end{cases}$$

$$\frac{a \circ b}{(a \circ c)^2} + \frac{a \circ b}{(a \circ c)^2} = 1 \rightarrow \frac{a \circ b}{a \circ c} + \frac{a \circ b}{a \circ c} = 1 \rightarrow \frac{a \circ b + a \circ b}{a \circ c} = 1 \rightarrow 2a \circ b - a \circ b = 0$$

$$\frac{a \circ b}{a \circ c} = \begin{cases} \text{① } \frac{a \circ b}{a \circ c} = \frac{a \circ b}{a \circ c} = 1 \\ \text{② } \frac{a \circ b}{a \circ c} = \frac{a \circ b}{-1 \circ a \circ c} = -1 \end{cases} \quad \text{③}$$

$$(a+b)(a-b) = 0$$

$$\begin{cases} \text{① } a = -b \\ \text{② } a = b \end{cases}$$

$$a \circ b = \sqrt{a \circ c} \rightarrow (a \circ b)^2 = a \circ c \rightarrow a \circ b \circ b = a \circ c \rightarrow a \circ b = 1 \rightarrow a \circ b = a \circ c \circ b = 1 \checkmark$$

$$\frac{1}{c} - \frac{1}{c} = \frac{1}{c} \quad \text{④}$$

$$a \circ b \circ c = c \circ c$$

$$b = c \rightarrow a \circ (b) \circ c = c \circ c$$

$$a = \frac{1}{c} \quad \text{⑤}$$