

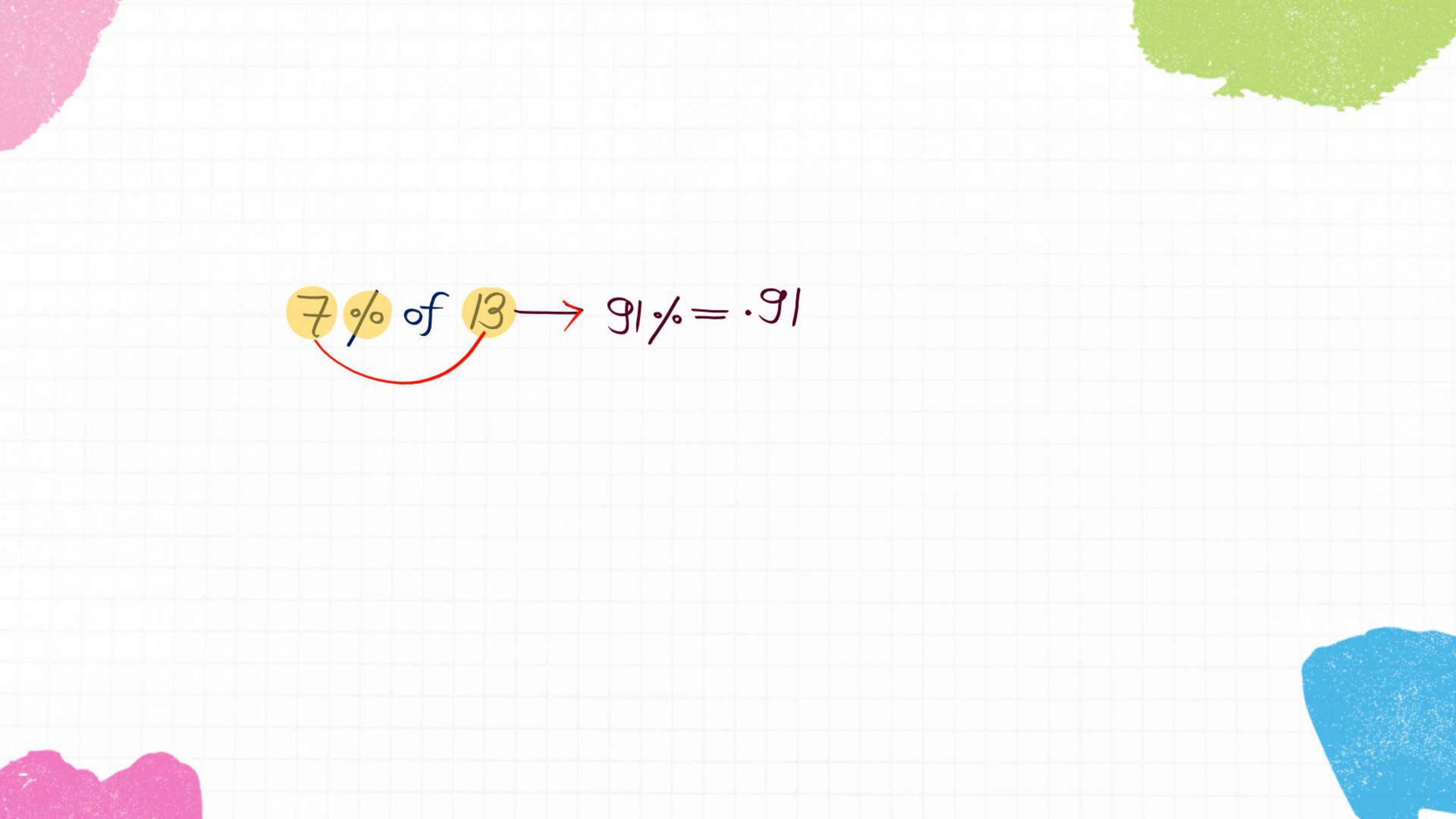
$$\mathbf{x\% \text{ of } y = y\% \text{ of } x = xy\%}$$

$$\underline{\mathbf{x \times \% \times y}} = \underline{\mathbf{y \times \% \times x}}$$

$$34\% \text{ of } 50 = 17$$

$$122\% \text{ of } 70 = 854$$





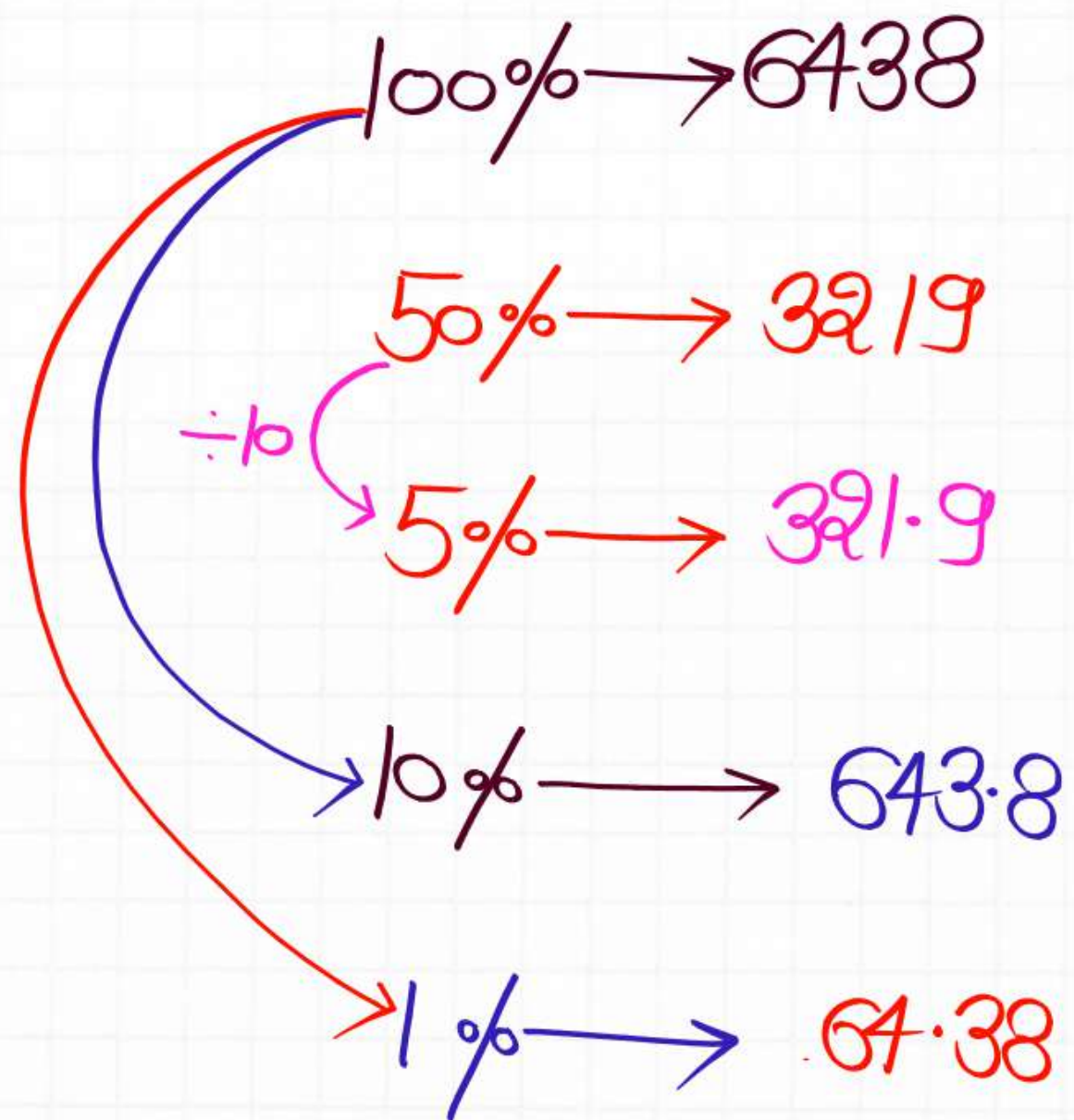
7% of 13 $\rightarrow$ 91% = .91

A handwritten mathematical expression on a grid background. The numbers 7, %, and 13 are each enclosed in a yellow circle. A red curved line connects the bottom of the first yellow circle (7) to the bottom of the third yellow circle (13). A red arrow points from the right side of the third yellow circle towards the right-hand side of the equation. The word 'of' is written in blue between the first and third yellow circles. The right-hand side of the equation is '91% = .91', written in dark red.

Number to percentage(%)

- ❖ ~~20%~~ of ~~740~~ = 148
- ❖ ~~3%~~ of ~~2900~~ = 87
- ❖ ~~550%~~ of ~~700~~ = 3850
- ❖ 22.22% of 189 = $\frac{2}{9} \times 189 = 42$
- ❖ 648% of 37.5 = $\frac{81}{125} \times 37.5 = 243$ ✓



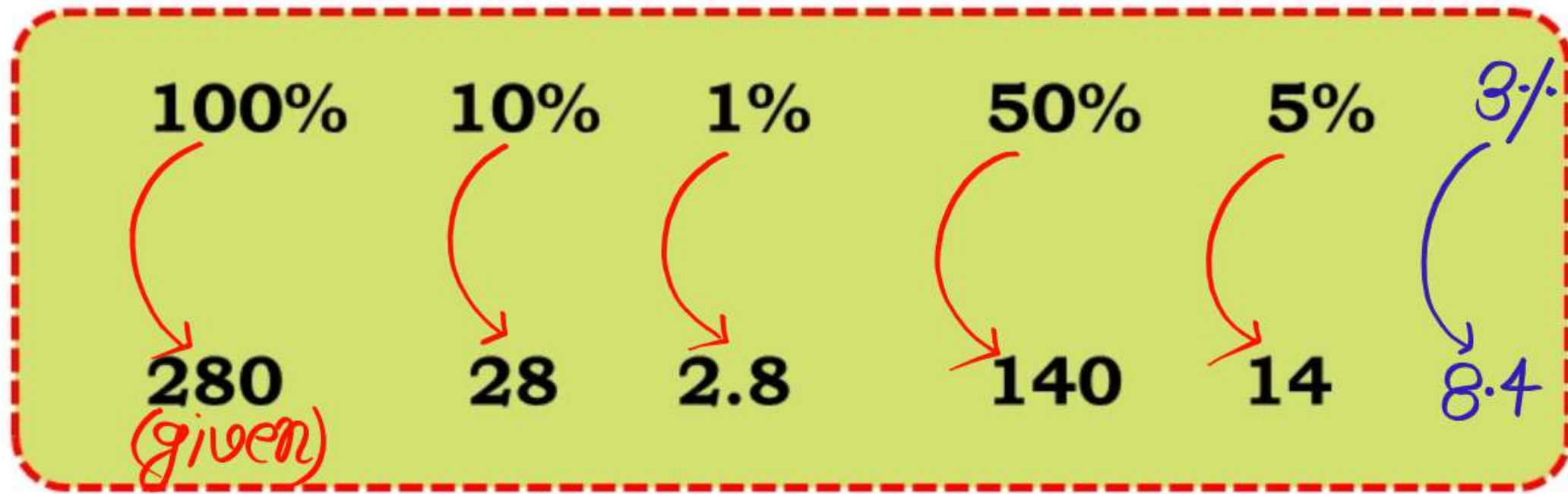


$$13\% \xrightarrow{\times 7} 9.1$$

$$100\% \xrightarrow{\times 7} 70$$

$$5.7\% \xrightarrow{\times 30} 1710$$

$$44\% \xrightarrow{\times 30} 1320$$



51% of 88 = ?

$$(50\% + 1\%) \times 88$$

$$= 44 + 0.88 = 44.88$$

189% of 436

$$(200\% - 10\% - 1\%) \times 436$$

$$= 872 - 43.6 - 4.36$$

$$= 872 - 47.96 = 824.04$$



306 is what % of 425?

306, 425 का कितना % है?
(Base)

Base $\rightarrow$ 100%

$$425 \times 72\% = 306$$

$$425 \rightarrow 100\%$$

$$1 \rightarrow \frac{100\%}{425}$$

$$306 \rightarrow 306 \times \frac{100\%}{425} = \frac{306}{425} \times 100\% = 72\%$$

Base

EXAMPLE

132 is what % of 330 (Base)

132, 330 का कितना % है।

$$\frac{132}{330} \times 100\% = 40\%$$

209 is what % of 152

209, 152 का कितना % है

Base

$$\frac{209}{152} = \frac{11}{8} = 1 + \frac{3}{8} = 100\% + 37.5\% = 137.5\%$$

143 is what % less than 165

143, 165 से कितना % कम है।

$$\text{Base} \rightarrow \frac{-22}{165} = -\frac{2}{15} \approx 13.33\% \text{ कम}$$

153 is what % more than 102.

153, 102 से कितना % अधिक है।

या

$$\frac{153 - 102}{102} = \frac{51}{102} = \frac{1}{2} = 50\% \text{ more}$$

Multiplying factor

Initial value		Final value	M.F
N	$\xrightarrow{+34\%}$	$134\% \times N = 1.34 \times N$	
P	$\xrightarrow{+20\%}$	$120\% \times P = 1.2 \times P$	
M	$\xrightarrow{+47\%}$	$147\% \times M = 1.47 \times M$	
L	$\xrightarrow{-10\%}$	$90\% \times L = 0.9 \times L$	
704	$\xrightarrow{-23\%}$	704×0.77	



final value

$$X \xrightarrow[+\frac{1}{6}]{+16.66\%} \left(1 + \frac{1}{6}\right) \times X = \frac{7}{6} X$$

$$Y \xrightarrow[+\frac{1}{14}]{+7.14\%} \frac{15}{14} Y$$

$$Z \xrightarrow[+\frac{4}{9}]{+44.44\%} \frac{13}{9} Z$$

$$W \xrightarrow[-\frac{1}{16}]{-6.25\%} \frac{15}{16} W$$

$$\pm \alpha\% \xrightarrow{\text{M.F.}} x(100 \pm \alpha)\%$$

or

$$x(1 \pm \alpha\%)$$