# MATHS SPECIAL

## PRE + MAINS — LIVE CLASS (ONE TO ONE INTERACTION)

**BILINGUAL CONTENT**

## REGISTRATION OPEN

**1 YEAR VALIDITY**

### INCLUDES

- ❑ LIVE Classes
- ❑ Result Oriented Approach
- ❑ PDF Notes
- ❑ Conceptual Clarity

### USEFUL FOR

- ❑ SSC EXAMS
- ❑ BANK EXAMS
- ❑ CSAT
- ❑ STATE GOVT. EXAMS

**DOWNLOAD TAIYARI KARO APP TO JOIN THE BATCH**

**SACHIN BALIYAN SIR**

# MATHS SYLLABUS

## ARITHMATIC:
(SSC/BANK/CUET/CSAT/STATE GOVT)

Time and Work
Pipe and Cistern

Percentage
Profit Loss and Discount
Compound Interest
Simple Interest

Average
Ratio and Proportion
Based of Ages
Partnership
Mixture and Alligation

Time Speed And Distance
Train
Race
Boat and Stream

## BANK:

Number Series
Quadratic Equation
Simplification
Approximation

Data Interpretation

Mensuration

Permutation
Combination
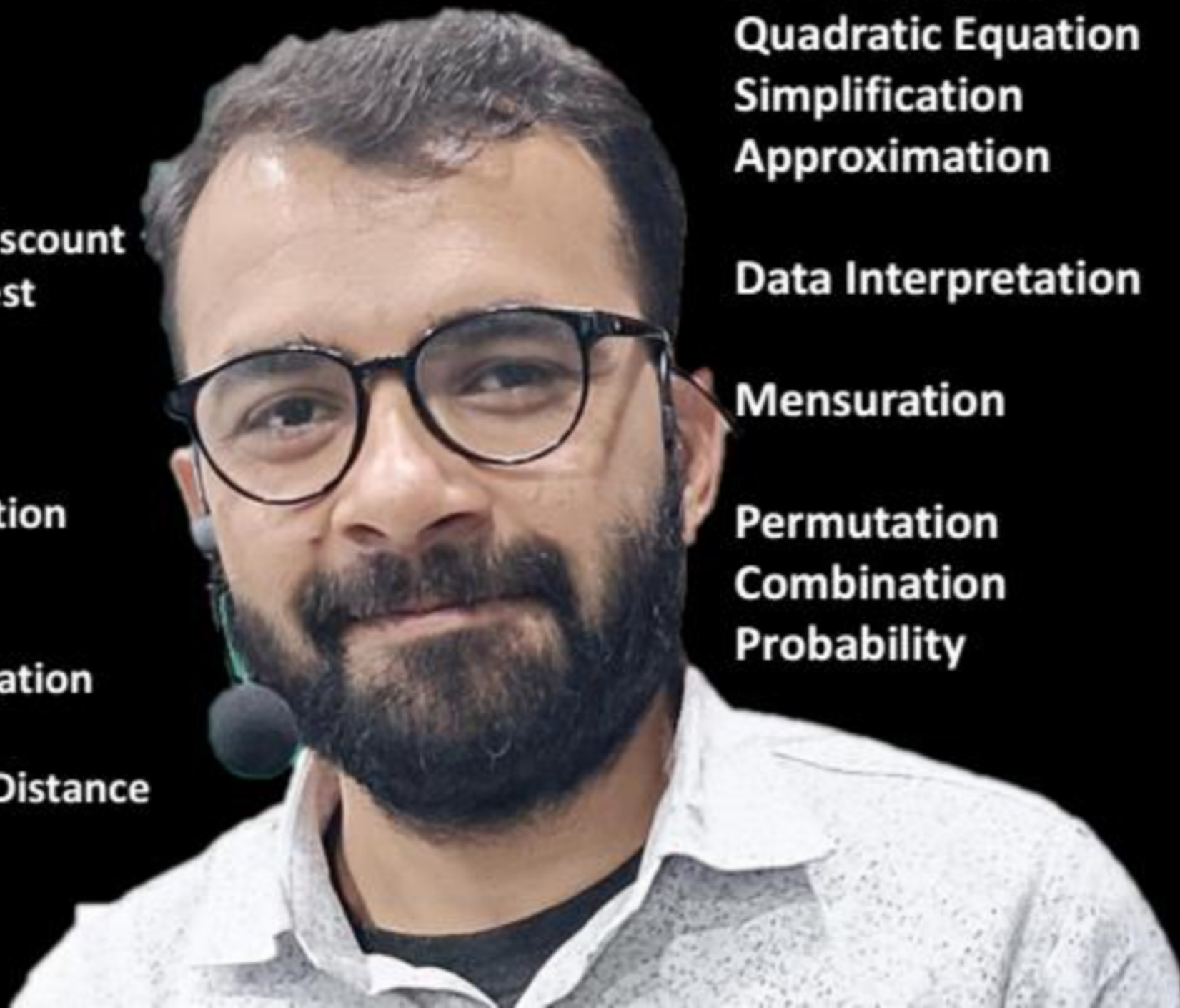Probability

## SSC:

Number System
LCM + HCF

Surds
Indices
Algebra

Trigonometry
Height and Distance

Geometry

Mensuration-2D

Mensuration-3D

Co-ordinate Geometry

# PERCENTAGE

# CONVERSION FROM PERCENTAGE TO FRACTION

# CONVERSION FROM FRACTION TO PERCENTAGE

# Percent to Fraction

| NO. OF QUESTIONS | CLASS NUMBER | CLASS DURATION |
|---|---|---|
| 15 Questions | DAY - 1 | 1 HOURS |

## CONVERSION OF PERCENTAGE INTO FRACTION

$$= \quad 20\% \quad \rightarrow \quad \frac{20}{100} \quad \rightarrow \quad \frac{1}{5}$$

$$= \quad 11\frac{1}{9}\% \quad \rightarrow \quad \frac{100}{9} \times \frac{1}{100} \quad \rightarrow \quad \frac{1}{9}$$

$$= \quad 16\frac{2}{3}\% \quad \rightarrow \quad \frac{50}{3} \times \frac{1}{100} \quad \rightarrow \quad \frac{1}{6}$$

$$20\% = \frac{20}{100}$$

$$\boxed{\frac{1}{5}}$$

$$6 \frac{1}{\boxed{4}} \% \Rightarrow \frac{\cancel{25}5}{4} \times \frac{1}{\cancel{100}} \quad \Bigg\} \quad 3 \boxed{3} \% \Rightarrow \boxed{\frac{1}{30}}$$

$$\boxed{\frac{1}{16}} \qquad \boxed{\frac{1}{16}}$$

$$\sqrt{280}$$

$$42\frac{6}{7}\% = \boxed{\frac{3}{7}}$$

$$44\frac{4}{9}\% = \boxed{\frac{4}{9}}$$

$$\sqrt{360}$$

$$\sqrt{\frac{1400}{280}}$$

$$242\frac{6}{7}\% = \boxed{\frac{17}{7}}$$

$$444\frac{4}{9}\% \Rightarrow \boxed{\frac{40}{9}}$$

$$\frac{3600}{360}$$

% → Fraction

$\dfrac{x}{y}$ → Given

Compare

① A is $16\dfrac{2}{3}$ % $9-B$.

$\dfrac{1}{6}$
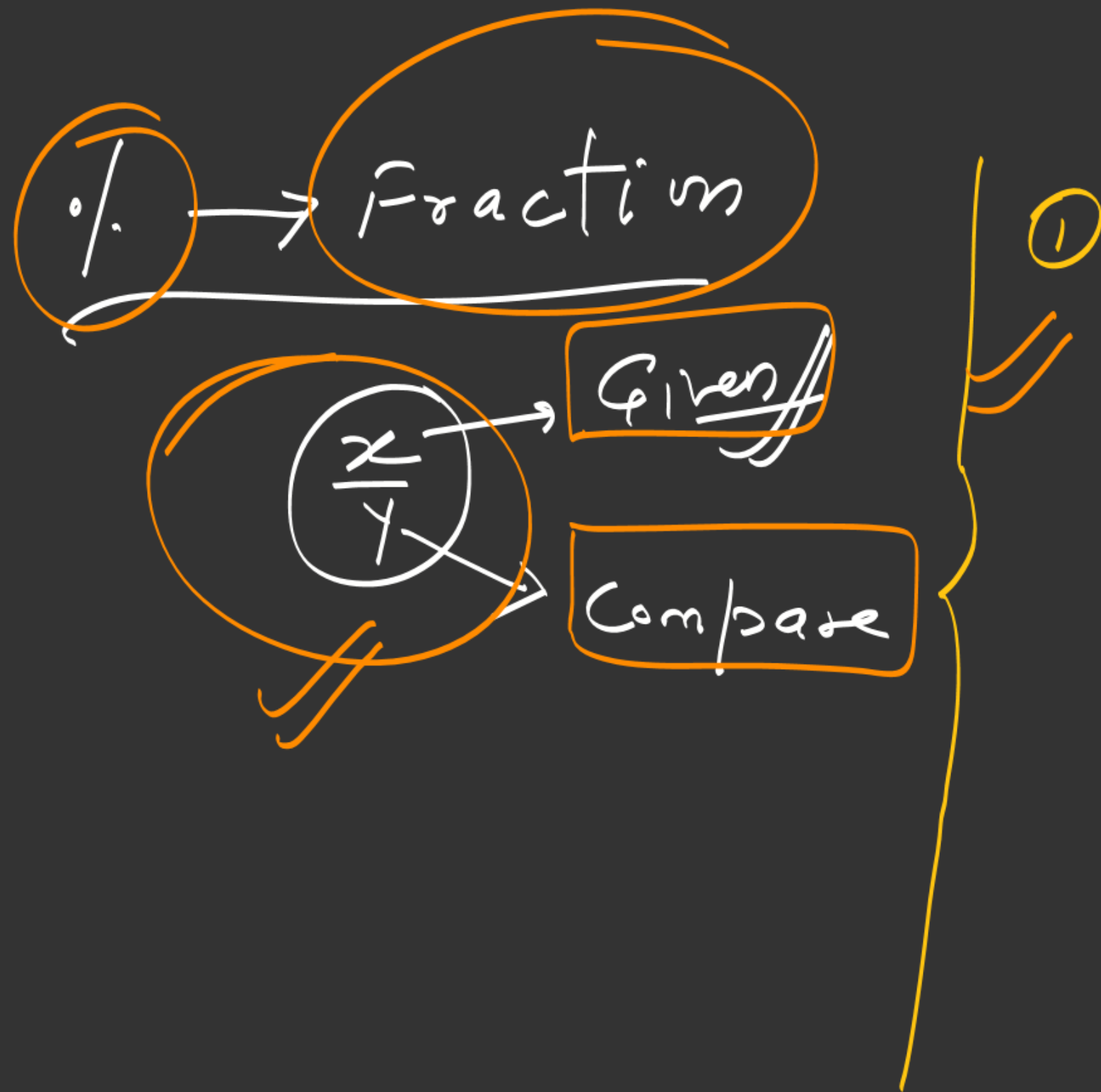
$$\dfrac{A \ell B}{1 : 6}$$

⑪

A is $\left(16\frac{2}{3}\%\right)$ more than B.

$\boxed{+1}/6$

$$\frac{A : B}{7 : 6}$$

A is $16\frac{2}{3}\%$ less than B.

$-\dfrac{1}{6}$

$$\frac{A : B}{5 : 6}$$

## SOME IMPORTANT FRACTIONS

| | | | |
|---|---|---|---|
| $\frac{1}{1} = 100\%$ | $\frac{1}{6} = 16\frac{2}{3}\%$ | $\frac{1}{11} = 9\frac{1}{11}\%$ | $\frac{1}{16} = 6\frac{1}{4}\%$ |
| $\frac{1}{2} = 50\%$ | $\frac{1}{7} = 14\frac{2}{7}\%$ | $\frac{1}{12} = 8\frac{1}{3}\%$ | $\frac{1}{17} = 5\frac{15}{17}\%$ |
| $\frac{1}{3} = 33\frac{1}{3}\%$ | $\frac{1}{8} = 12\frac{1}{2}\%$ | $\frac{1}{13} = 7\frac{9}{13}\%$ | $\frac{1}{18} = 5\frac{5}{9}\%$ |
| $\frac{1}{4} = 25\%$ | $\frac{1}{9} = 11\frac{1}{9}\%$ | $\frac{1}{14} = 7\frac{1}{7}\%$ | $\frac{1}{19} = 5\frac{5}{19}\%$ |
| $\frac{1}{5} = 20\%$ | $\frac{1}{10} = 10\%$ | $\frac{1}{15} = 6\frac{2}{3}\%$ | $\frac{1}{20} = 5\%$ |

when $16\frac{2}{3}$ % of a number is added with that number itself then resulted number becomes 2842 then find the original number ?

जब किसी संख्या का $16\frac{2}{3}$ % उसी संख्या के साथ जोड़ा जाता है तो परिणामी संख्या 2842 हो जाती है तब मूल संख्या ज्ञात करें?

(a) 2800    (b) 2640    (c) 2700

(d) 2436    (e) None of these

$$6 \times 406$$

Add

$16\frac{2}{3}$ %  $\to$ $\dfrac{1}{6}$

$N = 6$

New $= 7 \Rightarrow \dfrac{2842}{406}$

when $57\frac{1}{7}$ % of a number is added with that number itself then resulted number becomes 1210 then find the original number ?

जब किसी संख्या का $57\frac{1}{7}$ % उसी संख्या के साथ जोड़ा जाता है तो परिणामी संख्या 1210 हो जाती है तब मूल संख्या ज्ञात करें?

(a) 2800
(b) 2640
(c) 770
(d) 2000
(e) None of these

when $37\frac{1}{2}$ % of a number is subtracted with that number itself then resulted number becomes 2400 then find the original number ?

जब किसी संख्या का $37\frac{1}{2}$ % उसी संख्या से घटाया जाता है तो परिणामी संख्या 2400 हो जाती है तब मूल संख्या ज्ञात करें?

(a) 2800
(b) 2640
(c) 770
(d) 3840
(e) None of these

$$Subt \quad 37\frac{1}{2}\% \; से \; N$$

$$\frac{3}{8}$$

$$N = 8$$

$$New = 5$$

$$30 40$$

$$\times 480$$

$$\frac{2400}{480}$$

when 930 is added in a number then resulted number will becomes $444\frac{4}{9}$ % of that number . find the original number and new number?

जब 930 को एक संख्या में जोड़ा जाता है तो परिणामी संख्या उस संख्या का $444\frac{4}{9}$ % हो जाएगी। मूल संख्या और नया नंबर ज्ञात करें?
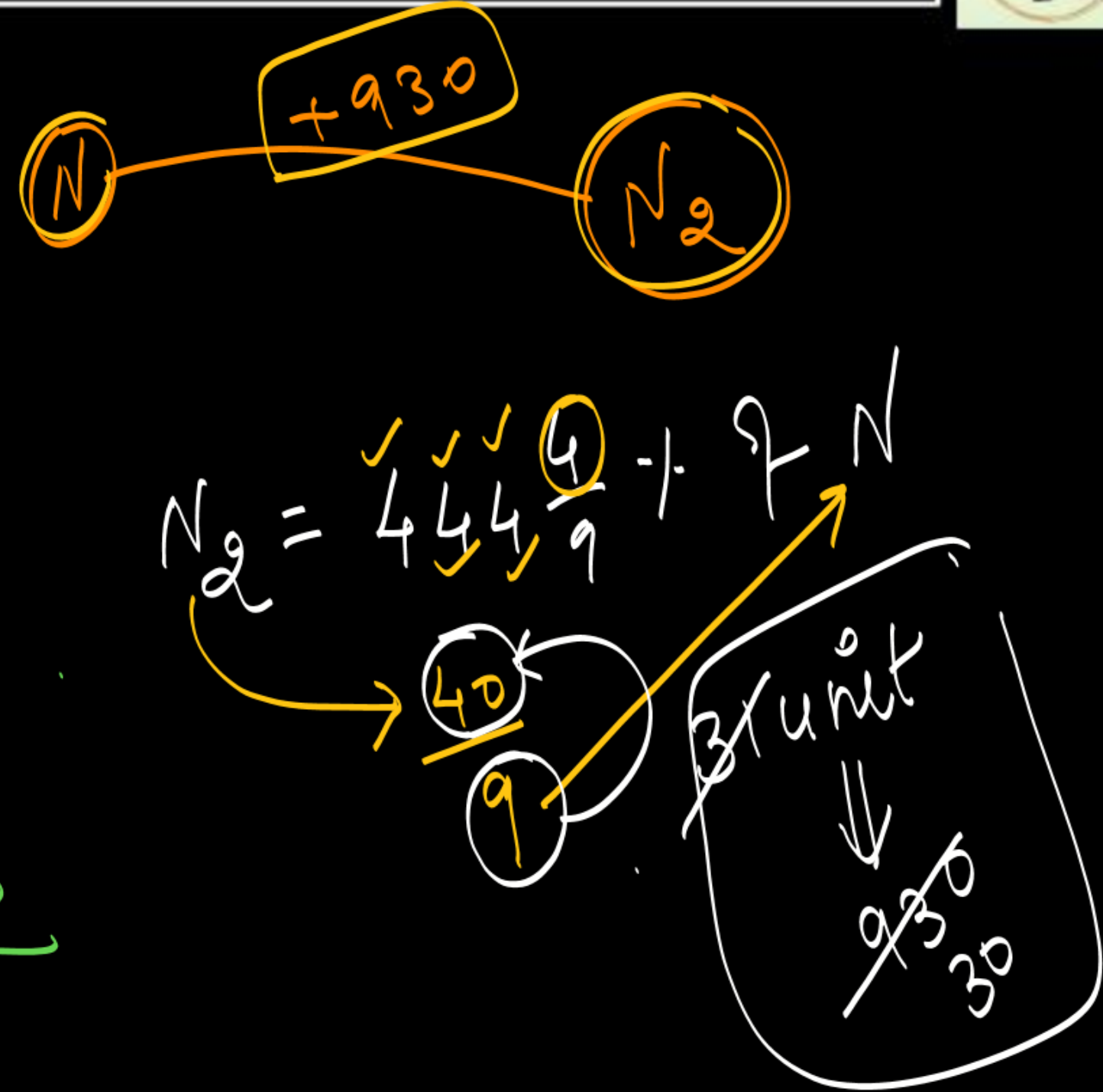
(a) 2800 ,1200

(b) 2640 ,800

(c) 270 , 1200

(d) 3840 ,2000

(e) None of these

$$N = 9 \times 30$$
$$N_2 = 40 \times 30$$

$$N_2 = 444\frac{4}{9} \% \ N$$

By increasing a number 72 the number becomes $442\frac{6}{7}\%$ of original number. What is original number?

संख्या 72 बढ़ने से नई संख्या मूल संख्या का $442\frac{6}{7}\%$ हो जाती है। मूल संख्या क्या है?

(a) 21    (b) 17
(c) 19    (d) 16
(e) None of these

If Sumit's income increased by $18\frac{3}{4}\%$ and becomes 7600. Find initial income.

यदि सुमित की आय में $18\frac{3}{4}\%$ की वृद्धि हुई और 7600 हो गई। प्रारंभिक आय का पता लगाएं।

(a) 4800      (b) 4700

(c) 4500      (d) 4200

(e) None of these

$Q.\text{ed}\quad 18\frac{3}{④}\% \quad \text{before}$

$③$

$16$

$A = 16$

$\boxed{B = 19}$

$\times 400$

$7600$

$400$

Amit invested $6\frac{2}{3}\%$ more than mona. mona invested $16\frac{2}{3}\%$ less than Raghu. if total their investment is 4900 then find the investment of Raghu?

अमित ने मोना से $6\frac{2}{3}\%$ अधिक निवेश किया। मोना ने रघु से $16\frac{2}{3}\%$ कम निवेश किया। यदि उनका कुल निवेश 4900 है तो रघु का निवेश ज्ञात कीजिए?

(a) 1600
(b) 1640
(c) 1500
(d) 1800
(e) None of these

$$A : M$$
$$16 : 15$$

$$\frac{M : R}{3 \times 5 : 6 \times 3}$$

$$49 \text{ unit} = 4900$$

$$18 \times 100$$

Divya decided to donate 15% of her salary to an NGO. But on the day of donation each she changed her mind and donated Rs 1896, which was 80% of what she had decided earlier. How much is Divya's salary?

दिव्या ने अपने वेतन का 15% एक एनजीओ को दान करने का फैसला किया। लेकिन दान के दिन उसने अपना मन बदल दिया और 1896 रुपये दान किए, जो कि उसने पहले तय किए गए पैसे का 80% था। दिव्या का वेतन कितना है?

(a) 16000          (b) 16400          (c) 18500

(d) 15800          (e) None of these