

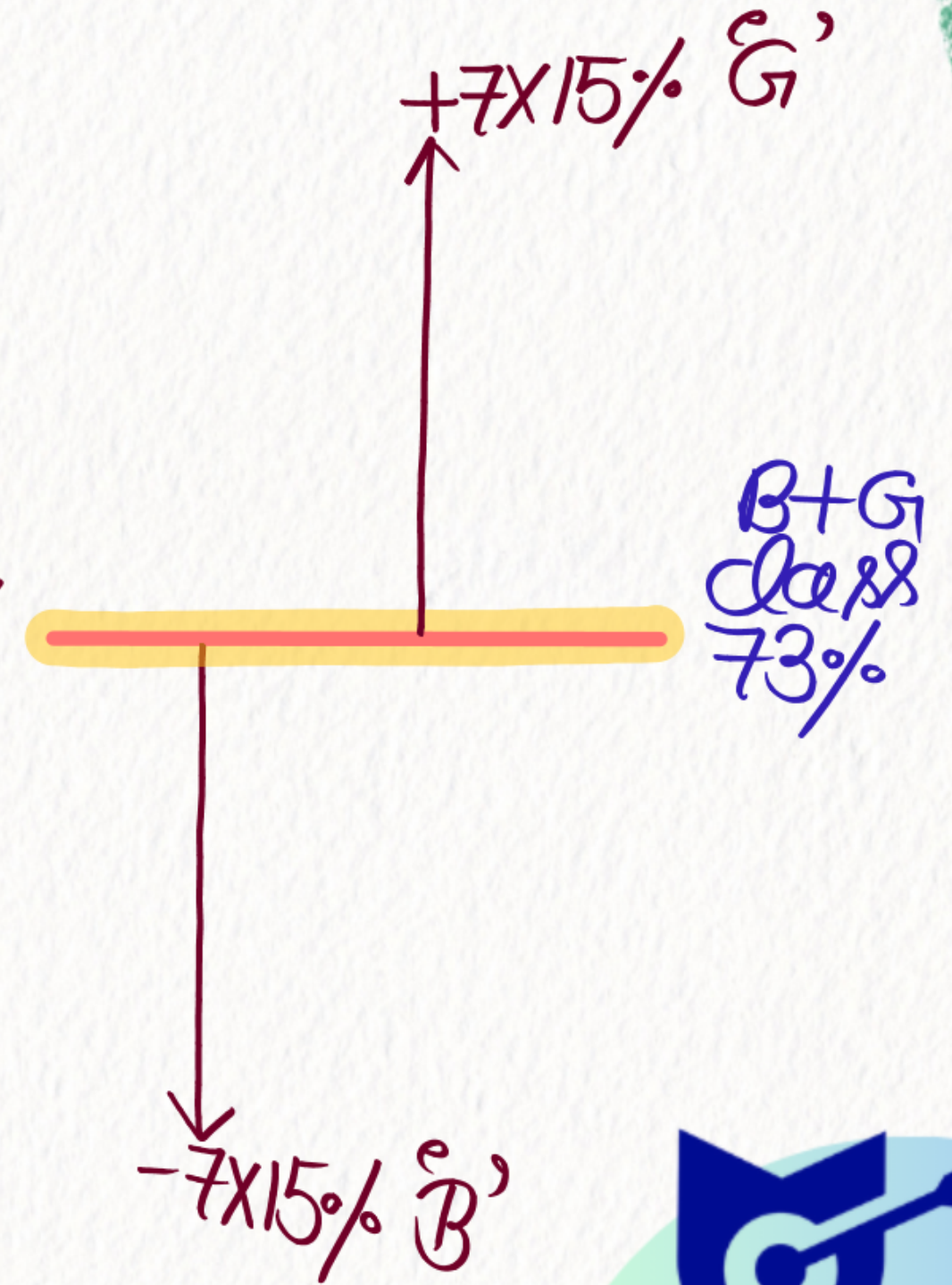
Reverse Deviation

B : G
No of students $\rightarrow 7$: $\textcircled{5}$

pass $\rightarrow 58\%$
 -15%

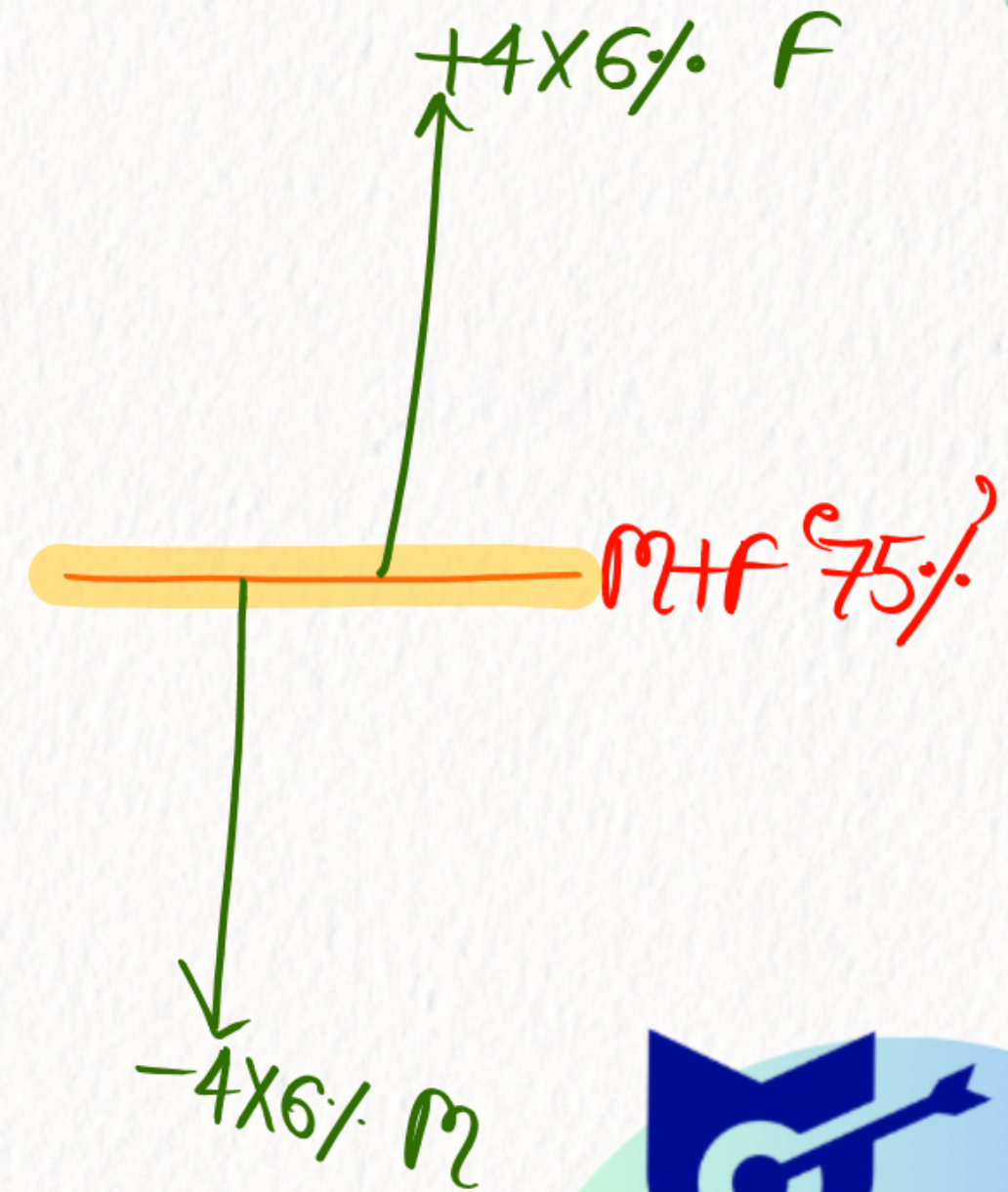
$$? = 73\% + \frac{7 \times 15\%}{5} = 94\%$$

B+G $\rightarrow 73\%$



$$\begin{array}{ccc}
 M & & F \\
 \textcircled{3} & : & 4 \\
 \text{\% of married} \rightarrow ? = 75\% - \frac{4 \times 6\%}{3} & & 81\% \\
 = 67\% & & + 6\%
 \end{array}
 \times$$

$M+F \rightarrow 75\%$ शादीचुदा



38. The population of a district is 374000, out of which 170000 are males. 78% of the population is literate. If 72% males are literate, then what percentage of females are literate? *Total* *Male*

एक जिले की जनसंख्या 374000 है, जिसमें से 170000 पुरुष हैं। 78% जनसंख्या साक्षर है। यदि 72% पुरुष साक्षर हैं, तो कितने प्रतिशत महिलाएं साक्षर हैं?

(RRB NTPC 12th LEVEL 2025)

[a] 81%

[b] 85%

[c] 83%

[d] 80%

#

Literate →

M

F

5

:

6

72%

26%

$$? = 78\% - \frac{5 \times 6\%}{6}$$

$$= 83\%$$

$$M + F = 78\%$$



39. A certain number of students from school X appeared in an examination and 20% students failed. From school Y, 130% more students than that from school X, appeared in the same examination. If 90% of the total number of students appeared from both the schools passed, then what is the percentage of students from school Y who failed (correct to one decimal place)?

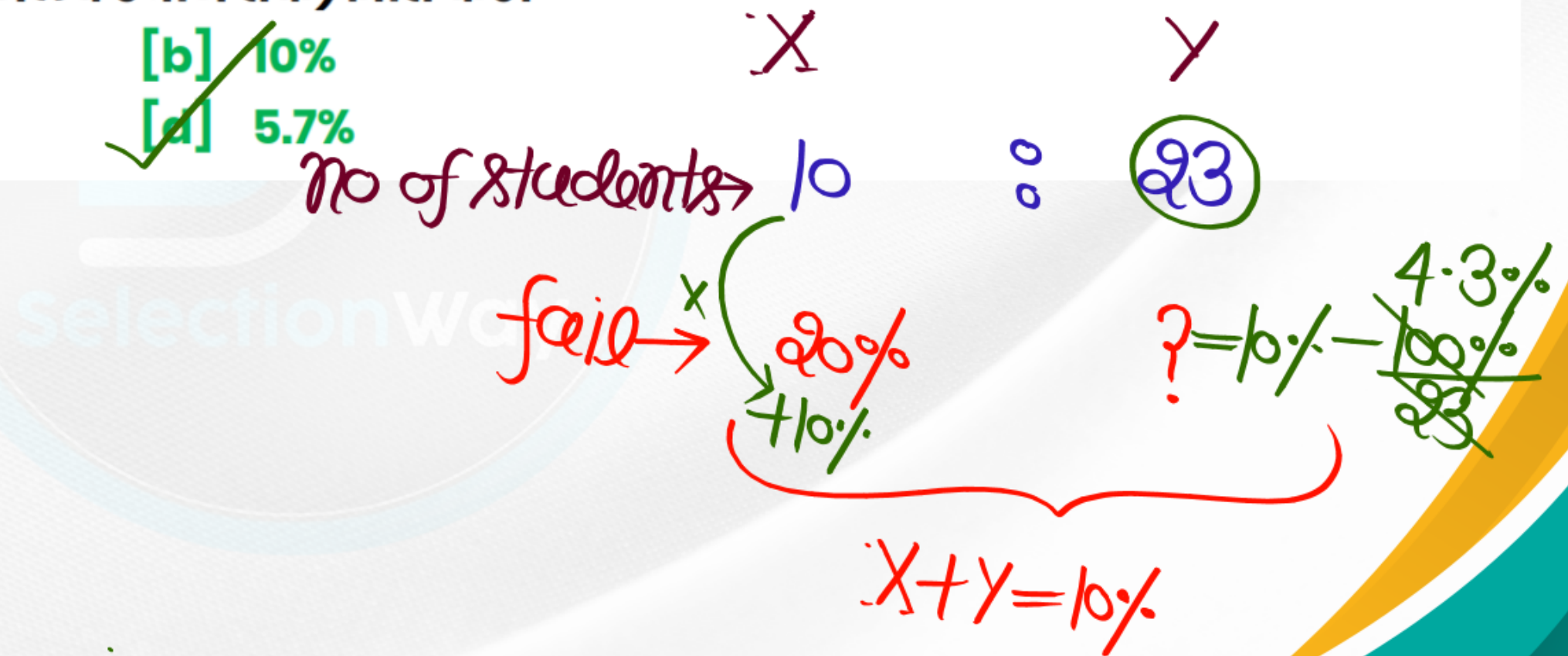
किसी परीक्षा में विद्यालय X से निश्चित संख्या में छात्र उपस्थित हुए और 20% छात्र अनुत्तीर्ण हो गए। उसी परीक्षा में, विद्यालय X की तुलना में विद्यालय Y से 130% अधिक छात्र उपस्थित हुए। यदि दोनों विद्यालयों से उपस्थित हुए कुल छात्रों में से 90% छात्र उत्तीर्ण हुए, तो विद्यालय Y के अनुत्तीर्ण छात्रों का प्रतिशत (एक दशमलव स्थान तक) ज्ञात करें।

[a] 8.3%

[b] 10%

[c] 6.4%

[d] 5.7%



40. In a year, out of 240 games to be played, a cricket team wants to win 80% of them. Out of 65% of the games already played, the success rate was 75%. What should be the success rate for the remaining games to reach the target?

एक वर्ष में खेले जाने वाले 240 खेलों में से एक क्रिकेट टीम उनमें से 80% जीतना चाहती है। पहले से खेले गए 65% खेलों में से, सफलता दर 75% थी। शेष खेलों के लक्ष्य तक पहुँचने के लिए सफलता दर क्या होनी चाहिए?

(ICAR Assistant 2022)

[a] 88.4%

[c] 87.8%

[b] 90.2%

[d] 89.3%

games $\rightarrow$ 13

:

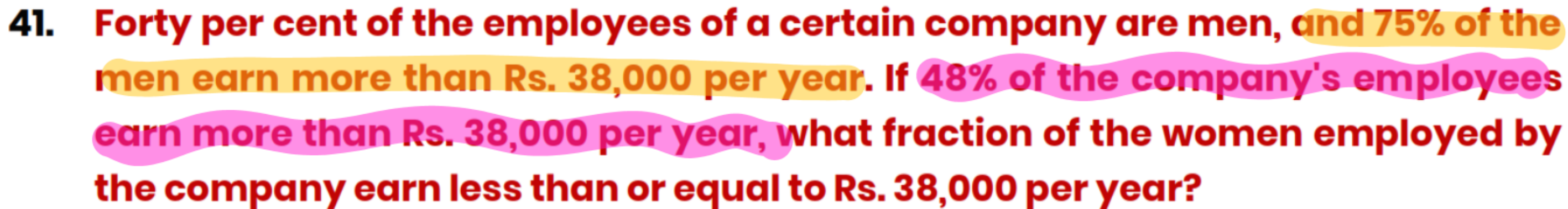
बचे
7

$\times$ 75%
-5%

? = 80% + 65%

80%

SelectionWay



$\frac{4}{5}$
 ~~$\frac{7}{10}$~~

70%

$$m \quad \omega$$

75%
 $75\% - 45\% = 30\%$

$$n + \omega \rightarrow 48\%$$

$$E+S=I$$

42. The expenditure of Sudha is 175% more than her savings. If her expenditure decreases by 12% and savings increase by 40.5%, then by what percent does her income increase? $+7\frac{7}{4}$

सुधा का व्यय, उसकी बचत से 175% अधिक है। यदि उसके व्यय में 12% की कमी हो जाती है और बचत में 40.5% की वृद्धि हो जाती है, तो उसकी आय में कितने प्रतिशत की वृद्धि होगी?

(SSC GD 2025)

[a] 4%

[c] 2%

[b] 5%

[d] 7%

-132
+162

$$E : S = 11 : 4$$

$$E \xrightarrow{-12\%}$$

$$S \xrightarrow{40.5\%}$$

$$E + S = \frac{30\%}{15} = 2\%$$

43. The savings of Surbhi is 16% of her expenditure. If her income increases by 35% and the expenditure increases by 38%, then by what percentage do her savings increases/decrease?

सुरभि की बचत, उसके खर्च का 16% है। यदि उसकी आय में 35% की वृद्धि होती है और व्यय में 38% की वृद्धि होती है, तो उसकी बचत में कितने प्रतिशत की वृद्धि/कमी होती है?

- [a] Decrease by 12.25%
- [b] Increase by 22.5%
- [c] Decrease by 13.9%
- [d] Increase by 16.25%

$$\begin{array}{ccc}
 E & & S \\
 25 & : & 4 \\
 \times 38\% & & \\
 \downarrow & & \\
 33\% & & \\
 +3\% & & \\
 \hline
 I \rightarrow 35\% & &
 \end{array}$$

$$? = 35\% - \frac{18.75\%}{4} = 16.25\%$$

44. A saves 35% of his income. His income is increased by 20.1% and expenditure is increased by 25%. By what percentage does his saving increase or decrease?

A अपनी आय में से 35% बचत करता है। उसकी आय में 20.1% की वृद्धि होती है और व्यय 25% बढ़ जाता है। उसकी बचत में प्रतिशत वृद्धि या कमी की गणना करें।

- [a] 11% increase/वृद्धि [b] 9% decrease/कमी
[c] 13% increase/वृद्धि [d] 14% decrease/कमी

Handwritten solution:

$$\begin{aligned}
 & \text{E} \quad 13 \quad \% \quad \text{S} \quad 7 \\
 & \text{I} \rightarrow 20.1\% \\
 & \text{Expenditure (E)} \rightarrow 25\% \text{ increase} \rightarrow +4.9\% \\
 & \text{Income (I)} \rightarrow 20.1\% \text{ increase} \\
 & \text{Savings (S)} \rightarrow ? \\
 & ? = 20.1\% - 13 \times 4.9\% = 11\%
 \end{aligned}$$

45. The monthly income of a person was Rs. 87,500 and his monthly expenditure was Rs. 50,000. Next year his income increased by 33% and his expenditure increased by 18%. The % increase in his savings was?

एक व्यक्ति की मासिक आय Rs 87500 तथा मासिक खर्च 50000 रु है यदि अगले वर्ष उसकी आय 33% बढ़ जाती है तथा खर्च 18% बढ़ जाता है तो बचत में % वृद्धि क्या होगी?

[a] 48%

[b] 53%

[c] 61%

[d] 50%

Handwritten solution:

$$\begin{array}{cc} E & S \\ 4 & : 3 \end{array}$$

For Expenditure (E): 18% increase, $\frac{18}{4} = 4.5\%$ (labeled as $\frac{15}{4}$ in the diagram).

For Savings (S): $? = 33\% - \frac{60}{3} = 53\%$ (Note: $\frac{60}{3}$ is crossed out and replaced with $\frac{18}{3}$ in the diagram).

Overall increase for $E+S \rightarrow 33\%$.

46. The monthly income of Reena was Rs. 75,200 and her monthly expenditure was Rs. 22,500. Next, her income increased by 25% and her expenditure by 14%. Find the percentage increase in her savings (rounded off to 2 decimal places).

रीना की मासिक आय ₹75,200 थी और उसका मासिक व्यय ₹22,500 था। अगले वर्ष, उसकी आय में 25% की वृद्धि हुई और उसके व्यय में 14% की वृद्धि हुई। उसकी बचत में प्रतिशत वृद्धि (दो दशमलव स्थान तक पूर्णांकित) ज्ञात कीजिए।

[SSC Selection Post (Phase-XII)]

[A] 28.25%

[B] 30.75%

[C] 29.70%

[D] 34.80%

Handwritten solution:

Income (I) = 75,200
Expenditure (E) = 22,500
Savings (S) = 52,700

Percentage increase in income = 25%
Percentage increase in expenditure = 14%

Formula for percentage increase in savings:

$$? = 25\% - \frac{22,500 \times 14\%}{52,700}$$

Calculation:

$$? = 25\% - \frac{3150}{527} = 25\% - 6.0\% = 19.0\%$$

Final answer: 19.00%