



SSC 2026



Preparing Bharat, Empowering Futures

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25 QUESTION *in* MINUTES



SSC 2026 TARGET



SPEED + ACCURACY + CONCEPT



shashi sir

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P	Q	P + Q + R
15	20	6
	60	

$4 : 3 : 10 - 7 = 3$

$R = 4500 \times \frac{3}{10}$
 $= 1350$

1. P alone can complete a piece of work in 15 days and Q alone in 20 days. P and Q undertake to do the work for 4,500. With the help of R, they complete the work in 6 days. How much should be paid to R?

एक काम को P अकेले 15 दिनों में और Q अकेले 20 दिनों में पूरा कर सकता है। P और Q उस काम को ₹4,500 में करने का ठेका लेते हैं। R की मदद से वे काम को 6 दिनों में पूरा कर ने हैं। R को कितना भुगतान किया जाना चाहिए?

(a) 1200

✓ (b) 1350

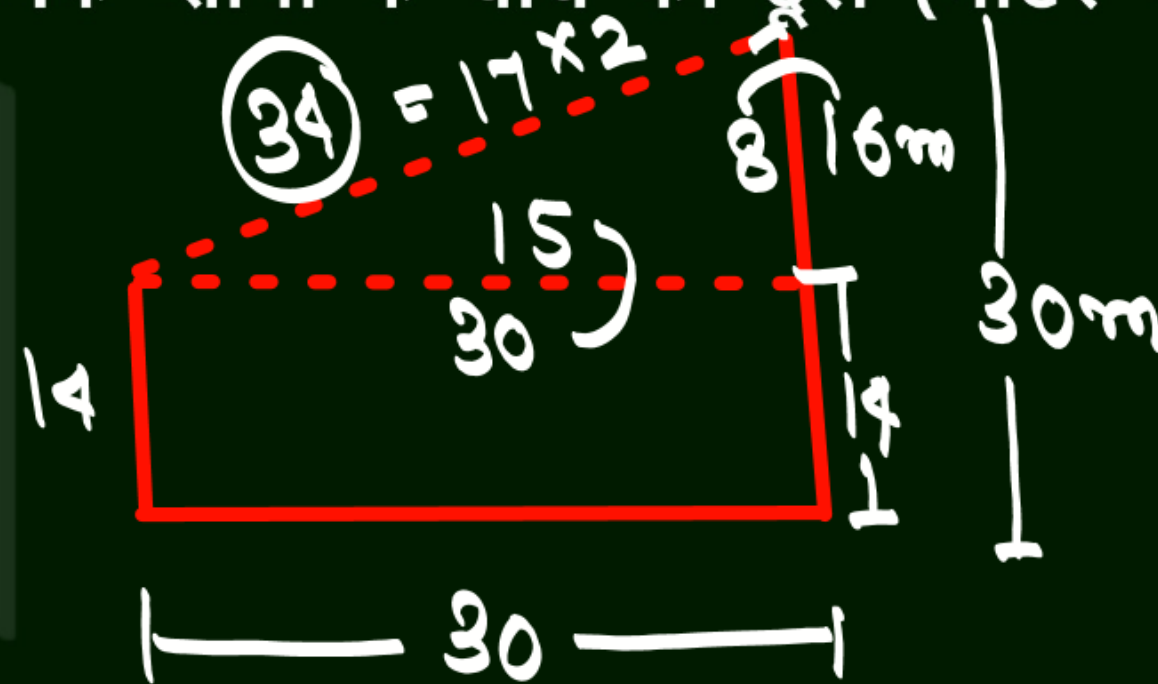
(c) 1500

(d) 1800

2. Two vertical poles of heights 14 m and 30 m are erected on a level ground. If the distance between the bases of the poles is 30 m, what is the distance (in m) between their tops?

समतल भूमि पर 14 मीटर और 30 मीटर ऊँचाई वाले दो ऊर्ध्वाधर स्तम्भ स्थापित हैं। यदि स्तम्भों के आधारों के बीच की दूरी 30 मीटर है, तो उनके शीर्षों के बीच की दूरी (मीटर में) कितनी होगी?

- ✓ (a) 34 m
(b) 45 m
(c) $12\sqrt{3}$ m
(d) $15\sqrt{3}$ m



3. If the numerator of a fraction is increased by 20% and the denominator is decreased by 10%, then the fraction so obtained is $\frac{16}{21}$. What is the original fraction?

यदि किसी भिन्न के अंश में 20% की वृद्धि की जाए और हर में 10% की कमी की जाए, तो प्राप्त भिन्न $\frac{16}{21}$ हो जाती है। मूल भिन्न क्या है?

(a) $\frac{3}{7}$

✓ (b) $\frac{4}{7}$

(c) $\frac{5}{7}$

(d) $\frac{2}{5}$

Let fraction = $\frac{x}{y}$

$$\frac{x \times \frac{120}{100}}{y \times \frac{90}{100}} = \frac{16}{21}$$

$\frac{12x}{9y} = \frac{16}{21}$

$\frac{4x}{3y} = \frac{16}{21}$

$\frac{x}{y} = \frac{16 \times 3}{21 \times 4} = \frac{4}{7}$

$$\begin{aligned}
 (D.C.T)^2 &= d^2 - (r_1 - r_2)^2 \\
 8^2 &= 10^2 - (2x - x)^2 \\
 x^2 &= 36 \\
 x &= 6
 \end{aligned}$$

4. Two circles have radii in the ratio 2: 1. The length of a direct common tangent is 8 cm, and the distance between their centers is 10 cm. What is the radius of the smaller circle?

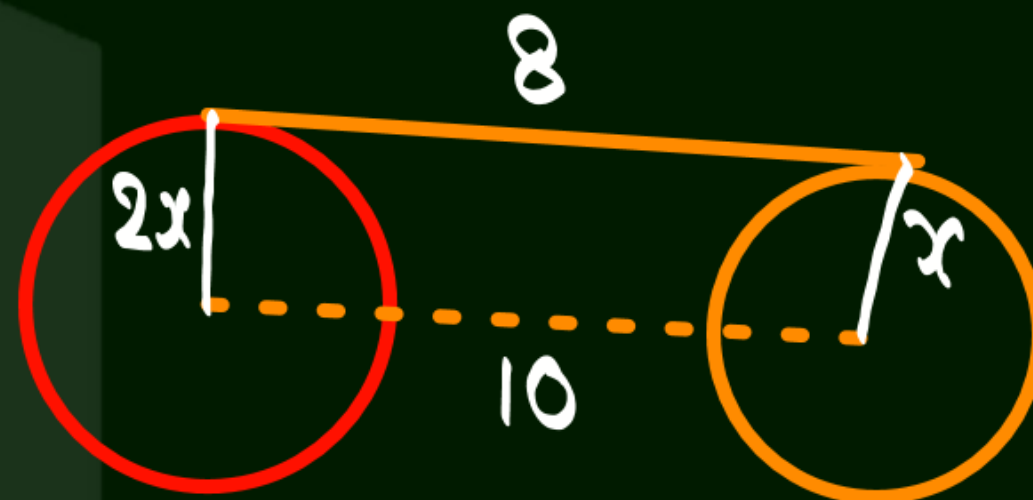
दो वृत्तों की त्रिज्याएँ 2 : 1 के अनुपात में हैं। एक सीधी सामान्य स्पर्श रेखा की लंबाई 8 सेमी है, और उनके केंद्रों के बीच की दूरी 10 सेमी है। छोटे वृत्त की त्रिज्या क्या है?

(a) 3 cm

(b) 4 cm

(c) 5 cm

✓ (d) 6 cm



What is the sum of $2\frac{1}{6} + 7\frac{1}{12} + 12\frac{1}{20} + 17\frac{1}{30} + \dots$ upto 15 terms?

$\frac{n}{2} [2a + (n-1)d]$ $+$ $[\frac{1}{2 \times 3} + \frac{1}{3 \times 4} + \dots + \frac{1}{16 \times 17}]$
 $2\frac{1}{6} + 7\frac{1}{12} + 12\frac{1}{20} + 17\frac{1}{30} + \dots$ के पहले 15 पदों का योग क्या है?

$$\frac{15}{2} [4 + 14 \times 5] + [\frac{1}{2} - \frac{1}{17}] \times \frac{1}{2}$$

$$\frac{15}{2} \times 74 + [\frac{17-2}{2 \times 17}]$$

$$555 + \frac{15}{34} = \boxed{\frac{18885}{34}}$$

- (a) 18884/34
 (b) 18885/34
 (c) 18886/34
 (d) 18887/34



6. The length of the arc of a sector is 22 cm and the radius of the circle is 14 cm. Find the area of the sector (in cm^2). (Take $\pi = 22/7$)

किसी वृत्त खंड की चाप की लंबाई 22 सेमी है और वृत्त की त्रिज्या 14 सेमी है। है। खंड का क्षेत्रफल (cm^2 में) ज्ञात कीजिए। ($n = 22/7$ मानिए)

$$A_{\text{sector}} = \frac{1}{2} \times l \times r$$

$$= \frac{1}{2} \times 22 \times 14$$

$$= 154 \text{ cm}^2$$

$$(a) 154 \text{ cm}^2$$

$$(b) 231 \text{ cm}^2$$

$$(c) 308 \text{ cm}^2$$

$$(d) 242 \text{ cm}^2$$

$$\tan(90^\circ - \theta) = \cot \theta$$

$$\tan(90^\circ - A) = \cot A = \sqrt{3} = \cot 30^\circ$$

$$A = 30^\circ$$

$$\sin A = \sin 30^\circ = \left(\frac{1}{2}\right)$$

7. If $\tan(90^\circ - A) = \sqrt{3}$, what is $\sin A$?

यदि $\tan(90^\circ - A) = \sqrt{3}$ तो $\sin A$ का मान क्या होगा?

(a) $\frac{1}{\sqrt{2}}$

(b) $\frac{1}{2}$

(c) 0

(p) $\frac{\sqrt{3}}{2}$

8. If $x^2 + y^2 + 25z^2 + 17 = 2(3x + 2y + 10z)$ then find the value of $(x + y - 5z)$.

यदि $x^2 + y^2 + 25z^2 + \textcircled{17} = 2(\underline{3}x + 2y + 10z)$ तो $(x + y - 5z)$ का मान ज्ञात

- ☒ (a) 3
- (b) $4/5$
- (c) 5
- (d) 6

$$x : \frac{3}{1} = 3$$

$$y : \frac{2}{1} = 2$$

$$z : \frac{10}{25} = \frac{2}{5}$$

$$\begin{aligned} x + y - 5z \\ 3 + 2 - 4 \times \frac{2}{5} \\ = \textcircled{3} \end{aligned}$$

$$\begin{array}{r} 0.05 \times 5 \\ 0.25 \end{array}$$

9. Find the value of $(0.05^3 + 0.005^3) \div (0.25^3 + 0.025^3)$
 $(0.05^3 + 0.005^3) \div (0.25^3 + 0.025^3)$ का मान ज्ञात कीजिए

(a) $1/5$

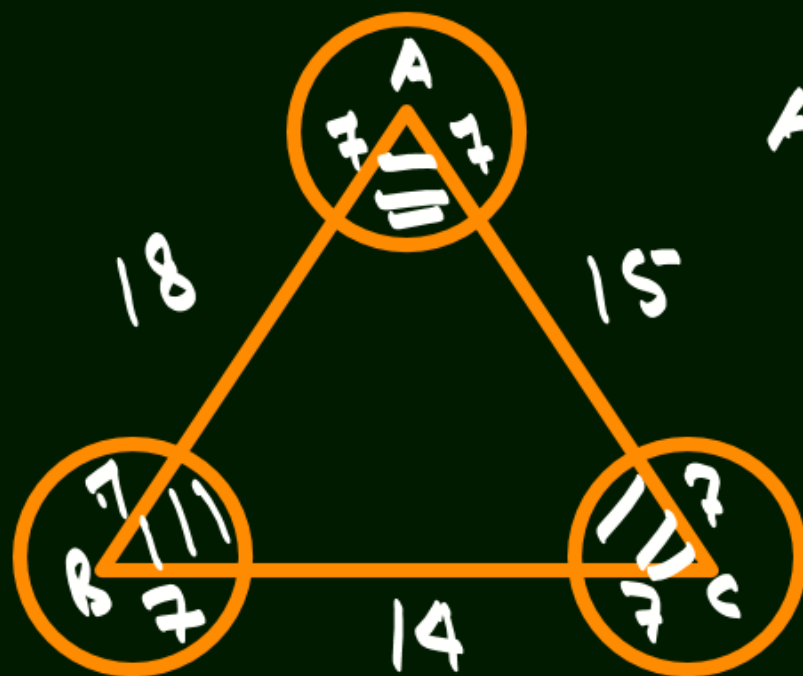
(b) $1/25$

☒ (c) $1/125$

(d) $1/625$

$$\frac{0.05^3 + 0.005^3}{0.25^3 + 0.025^3} = \frac{5^3 [0.05^3 + 0.005^3]}{5^3 [0.25^3 + 0.025^3]}$$

$$= \frac{1}{125}$$



$$\begin{aligned}
 A &= \frac{22}{7} \times 7^2 \times \frac{(A+B+C)}{360} \\
 &= \frac{22}{7} \times 7 \times 7 \times \frac{180}{360} \\
 &= 154 \times \frac{1}{2} \\
 &= 77 \text{ cm}^2
 \end{aligned}$$

10. The sides of a triangle are 18 cm, 14 cm, and 15 cm. At each of its vertices, circles of radius 7 cm are drawn. What is the total area (in cm^2) of the portions of these three circles that lie inside the triangle? (Take $\pi = 22/7$)

एक त्रिभुज की भुजाएँ 18 सेमी, 14 सेमी और 15 सेमी हैं। इसके प्रत्येक शीर्ष त्रिज्या के वृत्त बनाए गए हैं। इन तीनों वृत्तों के जो भाग त्रिभुज के अंदर आते हैं, उनका कुल क्षेत्रफल (सेमी में) क्या है? ($\pi = 22/7$ मानिए)

- (a) 55 cm^2
- (b) 66 cm^2
- (c) 77 cm^2
- (d) 88 cm^2

	F : S
- 4y	(5 : 1) × 2 = 10 2
+ 4y	(3 : 1) × 4 = 12 4

$$8 = 2 \quad 2$$

$$8 = 1 : \textcircled{4}$$

$$10 = 40$$

$$\begin{aligned} \text{Father} &= 40 + 4 \\ &= 44 \end{aligned}$$

11. Four years ago, the ratio of a father's age to his son's age was 5: 1. After 4 years, the ratio of their ages will be 3: 1. What is the present age (in years) of the father?

चार वर्ष पहले पिता की आयु और पुत्र की आयु का अनुपात 5: 1 था। 4 वर्ष बाद उनकी आयु का अनुपात 3 : 1 होगा। पिता की वर्तमान आयु (वर्षों में) क्या है?

(a) 40 years

✓ (b) 44 years

(c) 46 years

(d) 48 years

12. What is the value of $7 + 77 + 777 + 7777 + 77777$?

$7 + \underline{77} + \underline{777} + \underline{7777} + \overset{12345}{\underline{77777}}$ का मान क्या है?

(a) 86405 ✗

(b) 87415

✓ (c) 86415

(d) 85415

86415

$$\begin{array}{r}
 \begin{array}{c} 5 \\ \downarrow \\ 20 \\ -275 \\ -10 \end{array}
 \end{array}$$

Handwritten diagram showing a sequence of numbers and operations:

- Top row: 5, 6, 7, 8, 9, 10, 11, 12, 13
- Second row: 20, 30, 30, 22 (circled)
- Third row: +8, +8
- Fourth row: -10, -16, +16
- Fifth row: = -3
- Sixth row: Avg = 22 - 3 = 19

13. The average age of 9 students in a class is 22 years. The average age of the first five students is 20 years. The age of the sixth student is 6 years less than the age of the seventh student. The ages of the last two students are equal, and each is 10 years more than the average age of the first five students. What is the average age of the sixth and seventh students?

एक कक्षा में 9 विद्यार्थियों की औसत आयु 22 वर्ष है। प्रथम पाँच विद्यार्थियों की औसत आयु 20 वर्ष है। छठे विद्यार्थी की आयु सातवें विद्यार्थी की आयु से 6 वर्ष कम है। अंतिम दो विद्यार्थियों की आयु समान है, और प्रत्येक की आयु प्रथम पाँच विद्यार्थियों की औसत आयु से 10 वर्ष अधिक है। छठे और सातवें विद्यार्थियों की औसत आयु क्या है?

(a) 28 years
(c) 18 years

(b) 29 years
(d) 19 years

मनु.अं। Rest

25 : 75

$x = \frac{1}{3} \rightarrow S.P = 16 \text{ ₹/kg}$

$4 \rightarrow C.P = 64 \text{ ₹/kg}$

$S.P = 4 \times 64 \times 1.2$

$= 256 \times 1.2$

$2 \times 1 + 48 = 307.2$

$x = 307.2 - 48$

$= 259.2 \text{ ₹/kg}$

14. Oil equal to 25% of the weight of mustard seeds is extracted in a mill. The residue left after extraction (mustard cake) is sold as cattle feed at the rate of 16/kg. The mustard seeds are bought at 160/kg and the processing cost is 14/kg. At what price (per kg) should the oil be sold to earn a 20% profit on the total costs? (Total cost = Cost of mustard seeds + Processing costs).

सरसों के बीजों के भार का 25% तेल मिल में निकाला जाता है। निष्कर्षण के बाद बचा अवशेष (सरसों खली) पशु-चारे के रूप में ₹16/किग्रा की दर से बेचा जाता है। सरसों के बीज ₹60/किग्रा में खरीदे जाते हैं और प्रसंस्करण लागत ₹4/किग्रा है। कुल लागत पर 20% लाभ अर्जित करने के लिए तेल किस मूल्य (₹ प्रति किग्रा) पर बेचा जाना चाहिए? (कुल लागत = सरसों के बीजों की लागत प्रसंस्करण लागत)।

(a) 255.2₹/kg

(c) 259.2/kg

(b) 265.2/kg

(d) 263.2/kg

$$x^2 - 4x + 1 = 0$$

$$x + \frac{1}{x} = 4$$

$$x^3 + \frac{1}{x^3} = 52$$

$$x + \frac{1}{x} = 4$$

$$\frac{x^4 + \frac{1}{x^2}}{x^2 + 1}$$

$$x^2 + 1$$

$$= x(x^3 + \frac{1}{x^3})$$

$$x(x + \frac{1}{x})$$

$$= \frac{52}{4} = 13$$

15. If $x^2 - 4x + 1 = 0$ find the value of $\frac{x^4 + \frac{1}{x^2}}{x^2 + 1}$.

यदि $x^2 - 4x + 1 = 0$ है, तो $\frac{x^4 + \frac{1}{x^2}}{x^2 + 1}$ का मान

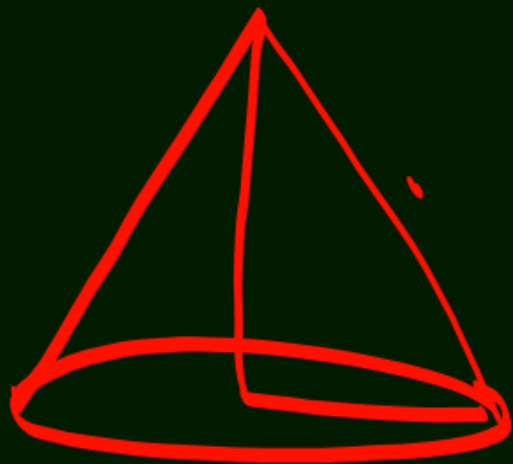
ज्ञात कीजिए।

(a) 15

(b) 9

(c) 17

✓ (d) 13



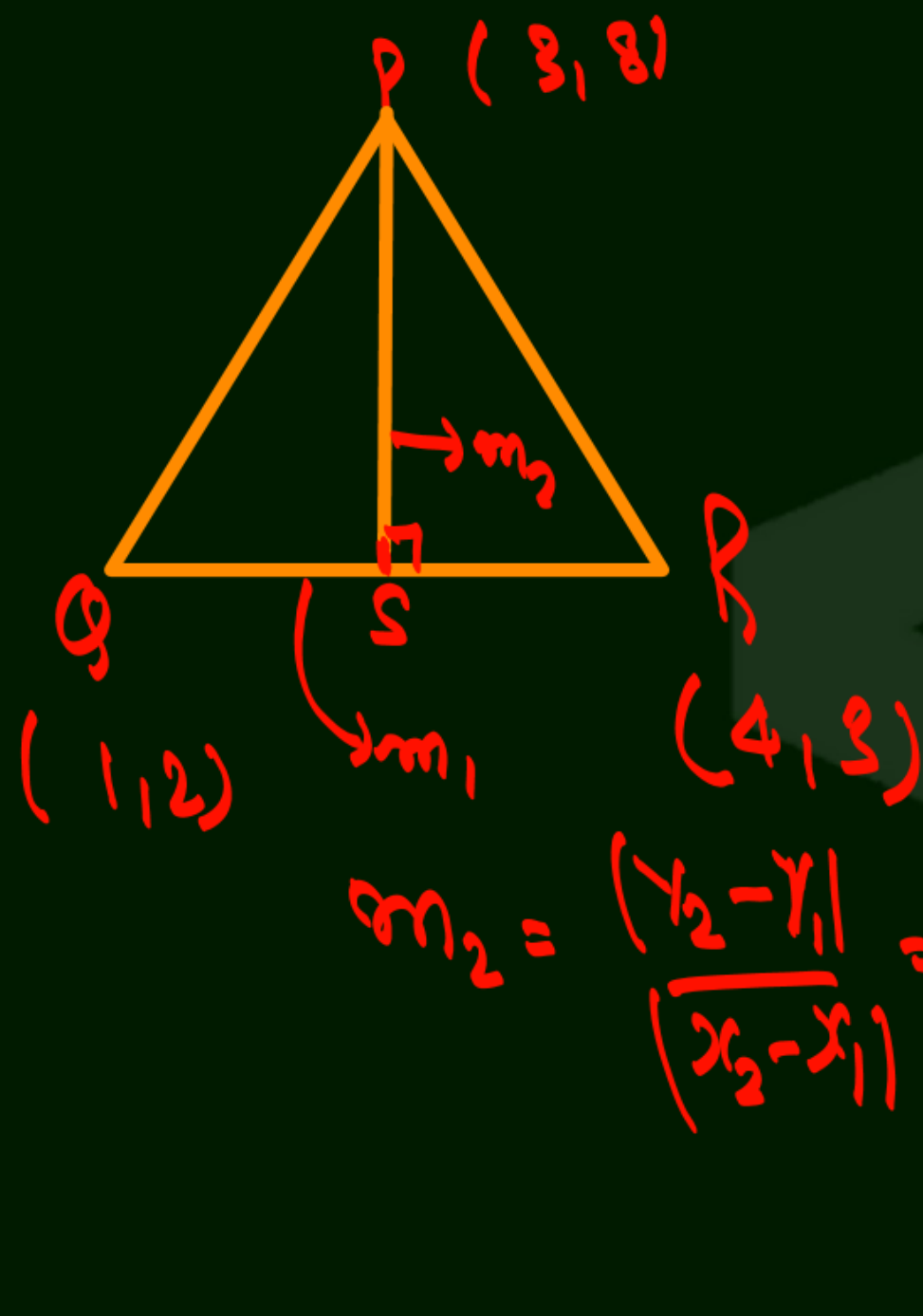
$$\pi r l = \pi r^2$$

$$l = r$$

16. A cone is such that the area of its base equals its lateral surface area. If radius is r , find the slant height l .

एक शंकु इस प्रकार है कि उसके आधार का क्षेत्रफल उसके पार्श्व पृष्ठीय क्षेत्रफल के बराबर है। यदि त्रिज्या है, तो तिर्यक ऊँचाई। ज्ञात कीजिए।

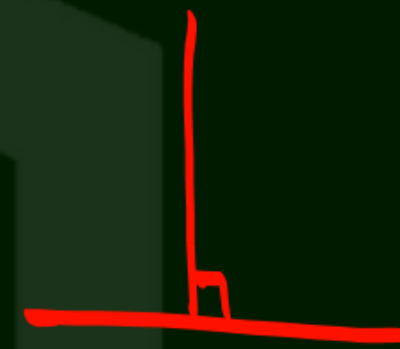
- (a) ~~r~~
 (b) $r/2$
 (c) $2r$
 (d) $3r$



17. In triangle PQR, an altitude PS is drawn from vertex P to the side QR. Given the coordinates of the vertices are P(3, 8), Q(1, 2), and R(4, 3), what is the slope of the line representing altitude PS?

त्रिभुज PQR में, शीर्ष P से भुजा QR पर PS लंब खींचा गया है। यदि शीर्षों के निर्देशांक P(3, 8), Q(1, 2) और R(4, 3) हैं, तो PS लंब की रेखा का ढाल क्या होगा?

- (a) -3
- (b) -1
- (c) 1
- (d) 3



$$m_1 \times m_2 = -1$$

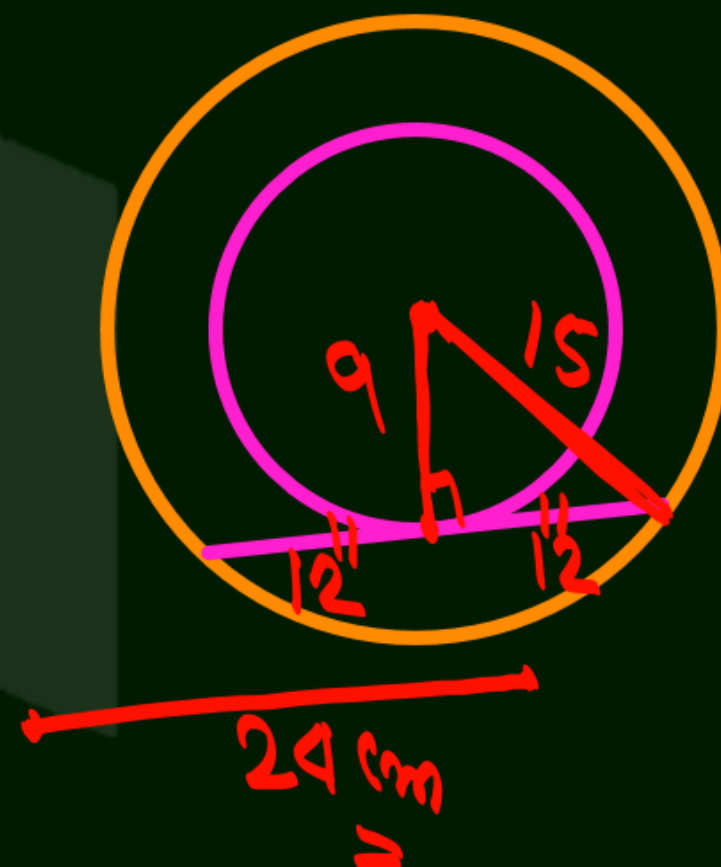
$$\frac{1}{3} \times m_2 = -1$$

$$m_2 = -3$$

18. Two concentric circles are drawn with radii 15 cm and 9 cm. Find the length of a chord of the larger circle which is tangent to the smaller circle.

15 सेमी और 9 सेमी त्रिज्या वाले दो संकेन्द्रित वृत्त बनाए गए हैं। बड़े वृत्त की उस ज्या की लंबाई ज्ञात कीजिए जो छोटे वृत्त को स्पर्श करती है।

- (a) 12 cm
- (b) 18 cm
- ☒ (c) 24 cm
- (d) 26 cm



$$16400 \text{ ₹}$$

$$A \quad B$$

$$A \times \left(\frac{21}{20}\right)^2 = B \times \left(\frac{21}{20}\right)^3$$

$$\frac{A}{B} = \frac{21}{20}$$

$$41 = 16400$$

$$1 = 400$$

$$21 = 8400$$

19. A and B together borrowed a sum of 16,400 at an interest rate of 5% p.a. compound interest. The loan was settled in such a way that A paid as much amount after 2 years as paid by B after 3 years from the day of borrowing. The sum (in) borrowed by A was:

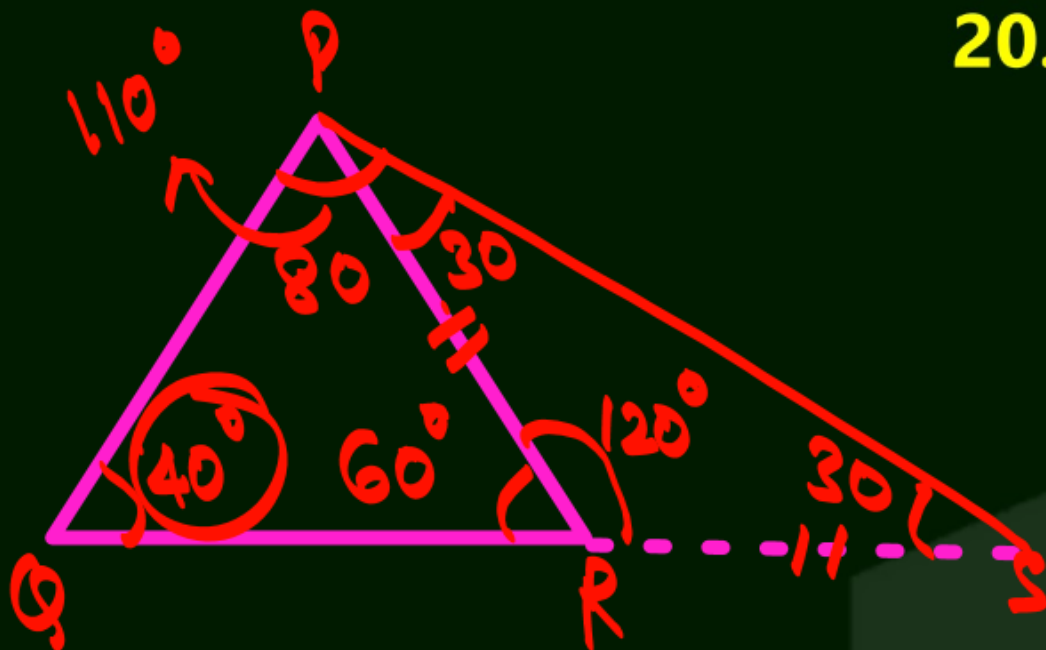
A और B ने मिलकर ₹16,400 की राशि 5% प्रतिवर्ष चक्रवृद्धि ब्याज पर उधार ली। ऋण का निपटान इस प्रकार किया गया कि उधार लेने के दिन से 2 वर्ष बाद A ने उतनी ही राशि चुकाई जितनी B ने 3 वर्ष बाद चुकाई। A द्वारा उधार ली गई मूल धनराशि (₹ में) क्या थी?

(a) 10500

☒ (b) 8400

(c) 6300

(d) 9100



20. In $\triangle PQR$, the side QR is extended to S such that $RS = PR$. If $\angle QPS = 110^\circ$ and $\angle PRQ = 60^\circ$, then the value of $\angle PQR$ is:

त्रिभुज PQR में, भुजा QR को S तक बढ़ाया गया है, ताकि $RS = PR$ हो। यदि $\angle QPS = 110^\circ$ तथा $\angle PRQ = 60^\circ$, तो $\angle PQR$ का मान है:

- (a) 50°
- (b) 40°
- (c) 25°
- (d) 30°

Type of Scooter/Month	January	February	March	April
X	45	55	28	35
Y	75	47	58	26
Z	86	27	73	51
T	74	32	29	69
Total	280	161	188	181

21. The table below shows the production of different types of scooters X, Y, Z and T by a company during four months.

In which month did the company produce the maximum number of scooters?

नीचे दी गई तालिका चार महीनों में कंपनी द्वारा स्कूटरों के प्रकार X, Y, Z और T का उत्पादन दर्शाती है। कंपनी ने किस माह में सबसे अधिक स्कूटरों का उत्पादन किया?

- (a) February
- (b) March
- (c) January
- (d) April

22. The marked price of an article is ₹1,500. It is sold for ₹1,071 after two successive discounts. If the first discount is 15% and the second discount is $x\%$, what is the value of x ?

किसी वस्तु का अंकित मूल्य ₹1,500 है। दो क्रमिक छूटों के बाद इसे ₹1,071 में बेचा जाता है। यदि पहली छूट 15% है और दूसरी छूट $x\%$ है, तो x का मान ज्ञात कीजिए।

- (a) 15%
- (b) 15.5%
- (c) 16.5%
- (d) 16%

$$1500 \times \frac{17}{20} = 1275$$

$$1275 \times \frac{4}{5} = 1020$$

$$1020 \times \frac{4}{5} = 816$$

$$816 \times \frac{4}{5} = 652.8$$

$$652.8 \times \frac{4}{5} = 522.24$$

$$522.24 \times \frac{4}{5} = 417.792$$

$$417.792 \times \frac{4}{5} = 334.2336$$

$$334.2336 \times \frac{4}{5} = 267.38688$$

$$267.38688 \times \frac{4}{5} = 213.909504$$

$$213.909504 \times \frac{4}{5} = 171.1276032$$

$$171.1276032 \times \frac{4}{5} = 136.90208256$$

$$136.90208256 \times \frac{4}{5} = 109.521666048$$

$$109.521666048 \times \frac{4}{5} = 87.6173328384$$

$$87.6173328384 \times \frac{4}{5} = 70.09386627072$$

$$70.09386627072 \times \frac{4}{5} = 56.075093016576$$

$$56.075093016576 \times \frac{4}{5} = 44.8600744132608$$

$$44.8600744132608 \times \frac{4}{5} = 35.88805953060864$$

$$35.88805953060864 \times \frac{4}{5} = 28.710447624486912$$

$$28.710447624486912 \times \frac{4}{5} = 22.9683581075895296$$

$$22.9683581075895296 \times \frac{4}{5} = 18.37468648607162368$$

$$18.37468648607162368 \times \frac{4}{5} = 14.6997491888573$$

$$14.6997491888573 \times \frac{4}{5} = 11.75979935108584$$

$$11.75979935108584 \times \frac{4}{5} = 9.407839480868672$$

$$9.407839480868672 \times \frac{4}{5} = 7.5262715846949376$$

$$7.5262715846949376 \times \frac{4}{5} = 6.02101726775595008$$

$$6.02101726775595008 \times \frac{4}{5} = 4.816813814204760064$$

$$4.816813814204760064 \times \frac{4}{5} = 3.8534510513638080512$$

$$3.8534510513638080512 \times \frac{4}{5} = 3.08276084109104644096$$

$$3.08276084109104644096 \times \frac{4}{5} = 2.466208672872837152768$$

$$2.466208672872837152768 \times \frac{4}{5} = 1.9729669382982705222144$$

$$1.9729669382982705222144 \times \frac{4}{5} = 1.57837355063861641777152$$

$$1.57837355063861641777152 \times \frac{4}{5} = 1.262698840510893134217216$$

$$1.262698840510893134217216 \times \frac{4}{5} = 1.0101590724087145073737728$$

$$1.0101590724087145073737728 \times \frac{4}{5} = 0.80812725792697160589901824$$

$$0.80812725792697160589901824 \times \frac{4}{5} = 0.646501806341577284719214592$$

$$0.646501806341577284719214592 \times \frac{4}{5} = 0.5172014450732618277753716736$$

$$0.5172014450732618277753716736 \times \frac{4}{5} = 0.41376115605861026222029733888$$

$$0.41376115605861026222029733888 \times \frac{4}{5} = 0.331008924846888210576237871104$$

$$0.331008924846888210576237871104 \times \frac{4}{5} = 0.2648071398775105684610702968832$$

$$0.2648071398775105684610702968832 \times \frac{4}{5} = 0.21184571190200845476885623750656$$

$$0.21184571190200845476885623750656 \times \frac{4}{5} = 0.169476569521606763815085070005248$$

$$0.169476569521606763815085070005248 \times \frac{4}{5} = 0.1355812556172854110520680560041984$$

$$0.1355812556172854110520680560041984 \times \frac{4}{5} = 0.10846500449382832884165444480335872$$

$$0.10846500449382832884165444480335872 \times \frac{4}{5} = 0.086772003595062663073323555842686976$$

$$0.086772003595062663073323555842686976 \times \frac{4}{5} = 0.0694176028760501304586588446741495808$$

$$0.0694176028760501304586588446741495808 \times \frac{4}{5} = 0.05553408230084010436692707573931966464$$

$$0.05553408230084010436692707573931966464 \times \frac{4}{5} = 0.044427265840672083493541660591455731712$$

$$0.044427265840672083493541660591455731712 \times \frac{4}{5} = 0.0355418126725376667948333284731645853696$$

$$0.0355418126725376667948333284731645853696 \times \frac{4}{5} = 0.02843345013803013343586666277853166829568$$

$$0.02843345013803013343586666277853166829568 \times \frac{4}{5} = 0.022746760110424106748693330222825334636544$$

$$0.022746760110424106748693330222825334636544 \times \frac{4}{5} = 0.0181974080883392853989546641782602677092352$$

$$0.0181974080883392853989546641782602677092352 \times \frac{4}{5} = 0.01455792647067142831916373134260821416738816$$

$$0.01455792647067142831916373134260821416738816 \times \frac{4}{5} = 0.011646341176537142655330985074086571333910528$$

$$0.011646341176537142655330985074086571333910528 \times \frac{4}{5} = 0.0093170729412297141242647880592692570671284224$$

$$0.0093170729412297141242647880592692570671284224 \times \frac{4}{5} = 0.00745365835298377129941183044741540565370273792$$

$$0.00745365835298377129941183044741540565370273792 \times \frac{4}{5} = 0.005962926682387017039529464357932324522962190336$$

$$0.005962926682387017039529464357932324522962190336 \times \frac{4}{5} = 0.0047703413459096136316235714863458596183777522688$$

$$0.0047703413459096136316235714863458596183777522688 \times \frac{4}{5} = 0.00381627307672769090530685718907668770270220181504$$

$$0.00381627307672769090530685718907668770270220181504 \times \frac{4}{5} = 0.003053018461382152724245485751261350162161761452032$$

$$0.003053018461382152724245485751261350162161761452032 \times \frac{4}{5} = 0.0024424147691057221793963886010090801297294091616256$$

$$0.0024424147691057221793963886010090801297294091616256 \times \frac{4}{5} = 0.00195393181528457774351711088080726410378352732929248$$

$$0.00195393181528457774351711088080726410378352732929248 \times \frac{4}{5} = 0.001563145452227662194813688704645811283026821863433984$$

$$0.001563145452227662194813688704645811283026821863433984 \times \frac{4}{5} = 0.0012505163617821297558509509637166490264214574907471872$$

$$0.0012505163617821297558509509637166490264214574907471872 \times \frac{4}{5} = 0.00100041309022570380468076077097331922113716599259774976$$

$$0.00100041309022570380468076077097331922113716599259774976 \times \frac{4}{5} = 0.000800330472180563043744608616778655376909732794078199808$$

$$0.000800330472180563043744608616778655376909732794078199808 \times \frac{4}{5} = 0.0006402643777444504349956868934229247015277862352625598464$$

$$0.0006402643777444504349956868934229247015277862352625598464 \times \frac{4}{5} = 0.00051221150219556034799654951473833976122222906821004787712$$

$$0.00051221150219556034799654951473833976122222906821004787712 \times \frac{4}{5} = 0.000409769201756448278397239611790671808977783254568038301696$$

$$0.000409769201756448278397239611790671808977783254568038301696 \times \frac{4}{5} = 0.0003278153614051586227177916894325374471822266036544306413568$$

$$0.0003278153614051586227177916894325374471822266036544306413568 \times \frac{4}{5} = 0.00026225228912412690617423335154603075774578128292354451308544$$

$$0.00026225228912412690617423335154603075774578128292354451308544 \times \frac{4}{5} = 0.000210601831299301524939386681236824606196625026338835610468352$$

$$0.000210601831299301524939386681236824606196625026338835610468352 \times \frac{4}{5} = 0.0001684814650394412199515093449894596857573000210710684883746816$$

$$0.0001684814650394412199515093449894596857573000210710684883746816 \times \frac{4}{5} = 0.00013478517203155297596120747599156774860584001685685479069974528$$

$$0.00013478517203155297596120747599156774860584001685685479069974528 \times \frac{4}{5} = 0.000107828137625242380768965980793254158884672013485483832559876224$$

$$0.000107828137625242380768965980793254158884672013485483832559876224 \times \frac{4}{5} = 8.62625101001939046151727846346033271077376107883870660479017792 \times 10^{-5}$$

$$8.62625101001939046151727846346033271077376107883870660479017792 \times 10^{-5} \times \frac{4}{5} = 6.901000808015512369213822770768266168619008863071045283832142336 \times 10^{-5}$$

$$6.901000808015512369213822770768266168619008863071045283832142336 \times 10^{-5} \times \frac{4}{5} = 5.5208006464124098953710582166146129349032070904568362270657138688 \times 10^{-5}$$

$$5.5208006464124098953710582166146129349032070904568362270657138688 \times 10^{-5} \times \frac{4}{5} = 4.41664051712992791629684657329169034792256567236546906165257109504 \times 10^{-5}$$

$$4.41664051712992791629684657329169034792256567236546906165257109504 \times 10^{-5} \times \frac{4}{5} = 3.533312413703942333037477258633352278338052537892375249322056876032 \times 10^{-5}$$

$$3.533312413703942333037477258633352278338052537892375249322056876032 \times 10^{-5} \times \frac{4}{5} = 2.8266499309631538664299818069066818226704420303139001994576455008256 \times 10^{-5}$$

$$2.8266499309631538664299818069066818226704420303139001994576455008256 \times 10^{-5} \times \frac{4}{5} = 2.26131994477052309314398544552534545813635362425112015956611640066048 \times 10^{-5}$$

$$2.26131994477052309314398544552534545813635362425112015956611640066048 \times 10^{-5} \times \frac{4}{5} = 1.809055955816418474515188356420276366509082907400896127652893120528384 \times 10^{-5}$$

$$1.809055955816418474515188356420276366509082907400896127652893120528384 \times 10^{-5} \times \frac{4}{5} = 1.4472447646531347796121506851362210932072663259207169021223144964227072 \times 10^{-5}$$

$$1.4472447646531347796121506851362210932072663259207169021223144964227072 \times 10^{-5} \times \frac{4}{5} = 1.15779581172250782368972054810905687456581306073657352169785159713816576 \times 10^{-5}$$

$$1.15779581172250782368972054810905687456581306073657352169785159713816576 \times 10^{-5} \times \frac{4}{5} = 9.26236649378006258951776438487245507652650448589258817358281277710533248 \times 10^{-6}$$

$$9.26236649378006258951776438487245507652650448589258817358281277710533248 \times 10^{-6} \times \frac{4}{5} = 7.410693195024050071614211507897964061221203588714070538866250221684265984 \times 10^{-6}$$

$$7.410693195024050071614211507897964061221203588714070538866250221684265984 \times 10^{-6} \times \frac{4}{5} = 5.9285545560192400572913692063183712489769628709712564310930001773474127872 \times 10^{-6}$$

$$5.9285545560192400572913692063183712489769628709712564310930001773474127872 \times 10^{-6} \times \frac{4}{5} = 4.74284364481539204583309536505469699918157029677699714487440014187793022976 \times 10^{-6}$$

$$4.74284364481539204583309536505469699918157029677699714487440014187793022976 \times 10^{-6} \times \frac{4}{5} = 3.794274915852313636666476292043757599345256237421597715899520113502344183808 \times 10^{-6}$$

$$3.794274915852313636666476292043757599345256237421597715899520113502344183808 \times 10^{-6} \times \frac{4}{5} = 3.0354199326818509093331810336350060794762050699372781727196160908018753470464 \times 10^{-6}$$

$$3.0354199326818509093331810336350060794762050699372781727196160908018753470464 \times 10^{-6} \times \frac{4}{5} = 2.42833594614548072746654482690800486358096405594982253817569287264150027763712 \times 10^{-6}$$

$$2.42833594614548072746654482690800486358096405594982253817569287264150027763712 \times 10^{-6} \times \frac{4}{5} = 1.942668756916384581973235861526403890864771244759858030540554298113200222109696 \times 10^{-6}$$

$$1.942668756916384581973235861526403890864771244759858030540554298113200222109696 \times 10^{-6} \times \frac{4}{5} = 1.5541350055331076655785886892211231126918169958078864244324434384905601776877568 \times 10^{-6}$$

$$1.5541350055331076655785886892211231126918169958078864244324434384905601776877568 \times 10^{-6} \times \frac{4}{5} = 1.24330800442648613246287095137689849015345359664630913954595475079244814215020544 \times 10^{-6}$$

$$1.24330800442648613246287095137689849015345359664630913954595475079244814215020544 \times 10^{-6} \times \frac{4}{5} = 9.94646403541188905970296761090318792122762877317047311636763800633958513720164352 \times 10^{-7}$$

$$9.94646403541188905970296761090318792122762877317047311636763800633958513720164352 \times 10^{-7} \times \frac{4}{5} = 7.957171228329511247762374088722542336982103018536378493094110405071668109761314816 \times 10^{-8}$$

$$7.957171228329511247762374088722542336982103018536378493094110405071668109761314816 \times 10^{-8} \times \frac{4}{5} = 6.3657369826636089982106992709780338695856824148291027944752883240573344878090518528 \times 10^{-9}$$

$$6.3657369826636089982106992709780338695856824148291027944752883240573344878090518528 \times 10^{-9} \times \frac{4}{5} = 5.09258958613088719856855941678242709566854593186328223558023065924586759024724148224 \times 10^{-10}$$

$$5.09258958613088719856855941678242709566854593186328223558023065924586759024724148224 \times 10^{-10} \times \frac{4}{5} = 4.074071668904709758854847533425941676534836745490625788464184527396694072197793185792 \times 10^{-11}$$

$$4.074071668904709758854847533425941676534836745490625788464184527396694072197793185792 \times 10^{-11} \times \frac{4}{5} = 3.2592573351237678070838780267407533412278693963925006307713476219173552577582345486336 \times 10^{-12}$$

$$3.2592573351237678070838780267407533412278693963925006307713476219173552577582345486336 \times 10^{-12} \times \frac{4}{5} = 2.60740586809901424566710242139260267298229551711400050461707809753388420620658763890688 \times 10^{-13}$$

$$2.60740586809901424566710242139260267298229551711400050461707809753388420620658763890688 \times 10^{-13} \times \frac{4}{5} = 2.085924694479211396533681937114082138385836413691200403693662478027107364965270111125504 \times 10^{-14}$$

$$2.085924694479211396533681937114082138385836413691200403693662478027107364965270111125504 \times 10^{-14} \times \frac{4}{5} = 1.6687397555833691172269455496912657107086691309529603229549307824216858919722160889004032 \times 10^{-15}$$
<

$$\frac{(n-1) \times 100}{T} = \frac{0.36 \times 100}{4} = 9\%$$

$$9\% \times 10 = 90\%$$

$$1.36\% = 950000$$

$$1.40\% = 500000$$

23. A sum is deposited in a bank which gives simple interest. The sum becomes 1.36 times of itself in 4 years. If after 10 years there is a requirement of ₹9,50,000, how much amount (in) should one deposit to fulfill this requirement?

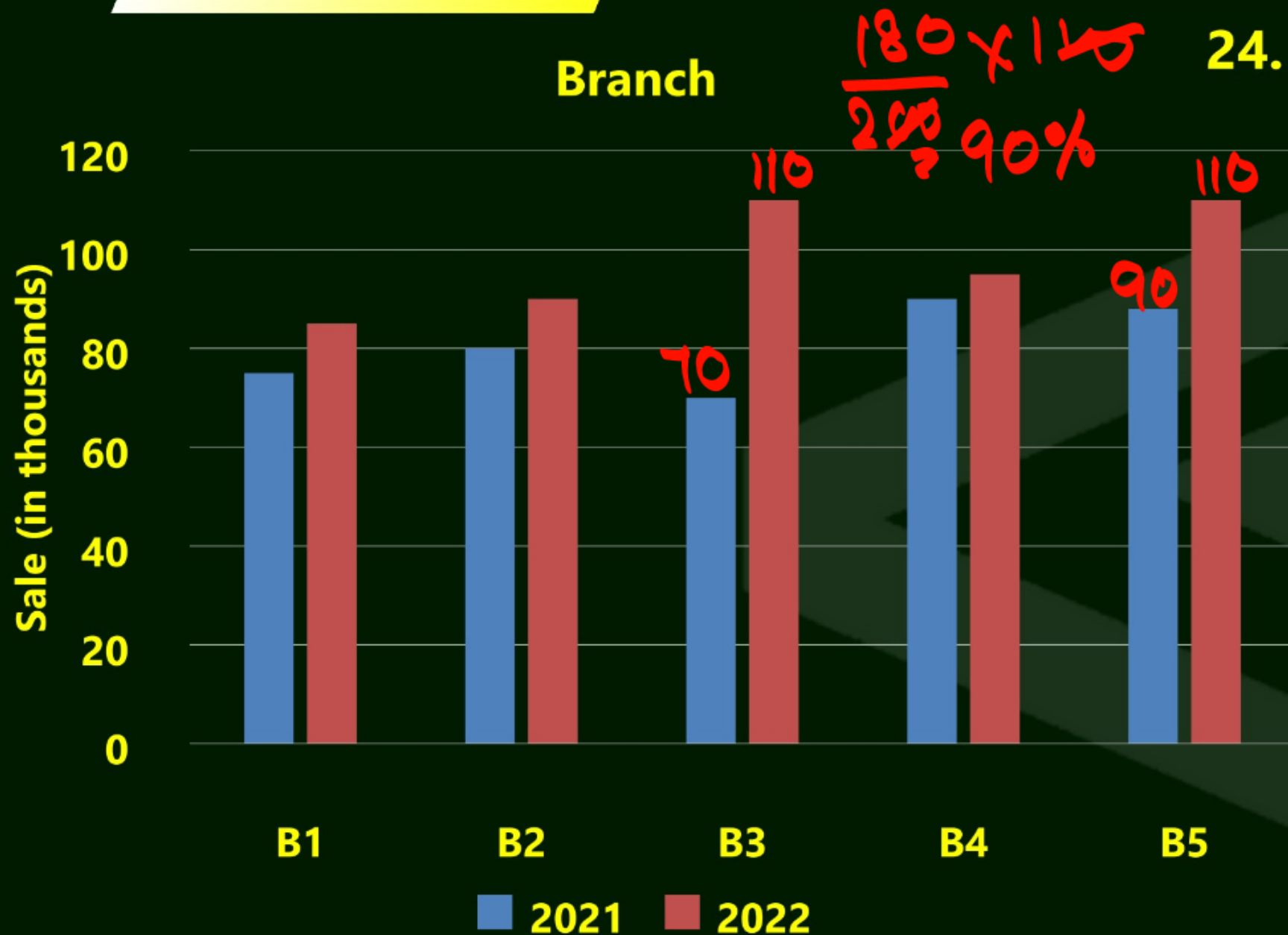
एक राशि ऐसे बैंक में जमा की जाती है जो साधारण ब्याज देता है। 4 वर्षों में वह राशि 1.36 गुना हो जाती है। यदि 10 वर्षों बाद ₹9,50,000 की आवश्यकता हो, तो इस आवश्यकता को पूरा करने के लिए कितनी राशि (₹ में) जमा करनी चाहिए?

(a) ₹5,50,000

☒ (b) ₹5,00,000

(c) ₹5,05,000

(d) 5,00,500



24. The bar graph given below shows the sale of toys (in thousands) from five branches of a manufacturer for two consecutive years, 2021 and 2022.

Total sales of branch B3 for both years is what percentage of the total sales of branch B5 for both years? (up to two decimal places)

नीचे दिया गया स्तंभ आरेख किसी निर्माता की पाँच शाखाओं में 2021 और 2022, दो क्रमागत वर्षों में खिलौनों की बिक्री (हजारों में) दर्शाता है। दोनों वर्षों में शाखा B3 की कुल बिक्री, दोनों वर्षों में शाखा B5 की कुल बिक्री का कितने प्रतिशत है? (दो दशमलव स्थान तक)

(a) 91.82%

(b) 85.85%

(c) 89.43%

(d) 90.91%

$$\begin{aligned}
 &P_1 \quad P_2 \\
 &2x + x = 3x \\
 &\frac{(2x-2) \times 180^\circ}{2x} - \frac{(x-2) \times 180^\circ}{x} = 18 \\
 &\frac{(2x-2) \times 180^\circ}{2x} - \frac{(x-2) \times 180^\circ}{x} = 18
 \end{aligned}$$

25. Two regular polygons P_1 and P_2 are such that the number of sides in P_1 is double the number of sides in P_2 . If the difference between their interior angles is 18° find the total number of sides of both polygons ($n_1 + n_2$).

दो समबहुभुज P_1 और P_2 ऐसे हैं कि P_1 की भुजाओं की संख्या, P_2 की भुजाओं की संख्या से दोगुनी है। यदि उनके अंतःकोणों का अंतर 18° है, तो दोनों बहुभुजों की कुल भुजाओं की संख्या ($n_1 + n_2$) ज्ञात कीजिए।

(a) 10

(b) 20

(c) 30

(d) 40

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