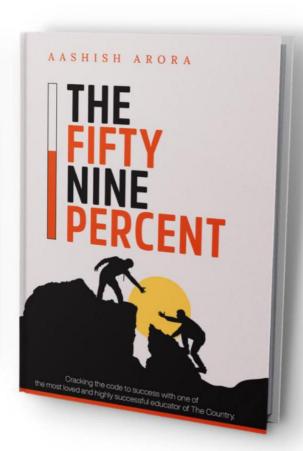


AASHISH ARORA

THE FIFTY NINE PERCENT

By Aashish Arora





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DEAR STUDENTS

We all dream about the day when we will crack XYZ examination, when will get a five-six-digit big salary, travel to all those beautiful places, buy new spacious house for our parents. Our entire focus is on the success, not the struggle. And it's totally understandable — because success is memorable, and everybody wants it, while the struggle is drab, disagreeable, and unattractive for the general public. But, it is the effort, struggling, and sticking to your resolutions that shapes you as a person. Success is a reward for giving your best, but it's not always within your control whether and when you get to enjoy it. Whenever you find yourself discouraged by your lack of success, remind yourself that its not giving-up and working hard is your real reward. It's in your hands whether you allow yourself to see the rewards the struggle generates or ignore them, Whether you mindlessly see the end result as the sole indicator of success. I failed numerous times in life. I could have despaired that I had lost so much time and effort and money, but I hadn't really failed. I had been true to my values of pursuing the life I wanted. I kept going, despite the obstacles I constantly encountered along the way. Eventually my efforts paid off. But even if it would have taken longer to get my results — the struggle would still have been worth it for the immense changes I underwent on the journey to pursue my dreams. Eventually my efforts paid off, but even if it had taken longer to get the results — the struggle would

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still have been worth it for the immense changes I underwent on the journey to pursue my dreams.

Rise and Shine.

Aashish Arora



AASHISH ARORA

1. SIMPLIFICATION AND APPROXIMATION

1. 983. 84 +
$$(35.77)^2$$
 - ? +187. 01 = 646. 9 + $(38.32)^2$

- A. 367
- B. 366
- C. 356
- D. 376
- E. none of these

2. 62. 5% of
$$6400 + (34)^2 + ? = 1888 + 4909$$

- A. 1461
- B. 1641
- C. 1541
- D. 1661
- E. none of these

3.
$$(10)^3 + 82 \times 8 + ? = 85.71\% \text{ of } 714 + (49)^2$$

- A. 1537
- B. 1457
- C. 1357
- D. 1457
- E. none of these

4.
$$\frac{1514}{?}$$
 + $(22)^2$ + $(10)^2$ = 239 × 4 + 88% of 2500 + (24×19)

- A. 2
- B. 3
- C. 0.6
- D. 0.4

E. none of these

5. 1412 + 83. 33% of 1140 -
$$\sqrt[3]{3375}$$
 = ?² - (6 × 9)

- A. 59
- B. 39
- C. 29
- D. 19
- E. 49

6.
$$5^{?} \times 625 \div 5^{3} = 65 \times 25 \times 125 \div 325$$

- A. 1
- B. 2
- C. 3
- D. 0

E. none of these

7.
$$16\frac{2}{3}$$
 % of 2160 + (27 × 19 × 5) = x^2 + 42.84% of 672 + (51)²

- A. 5
- **B.** 6

- C. 4
- D. 3
- E. 2

8.
$$(29^2 - 8^3 + \sqrt{961} + 23 \times 27 + 175)^{\frac{1}{2}} = x - \sqrt[3]{9^3 + 150.5 \times 4}$$

- A. 15
- B. 25
- C. 35
- D. 45
- E. none of these

9.
$$581\%$$
 of $500 + 5253 \div 3 \times 2 = 2x - 60 \times 3\frac{3}{12}$

- A. 3310
- B. 3301
- C. 3203
- D. 3201
- E. none of these

10.
$$(15 + 3\sqrt{5})^2 + 10 = ?\sqrt{5} + (19)^2 - \sqrt{6561}$$

- A. 70
- B. 80
- C. 90
- D. 100
- E. none of these

11.
$$355 - 71 \times 552 \div 6 + 1174 = x - 5487$$

- A. 584
- B. 444
- C. 844
- D. 484
- E. none of these

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12.
$$\sqrt{4227 \div 3 + 13 \times 9 - 5} + \sqrt{5^2 \times 22 \div \sqrt[3]{1331} + 14} + 2 = x$$

- A. 8
- B. 5
- **C**. 6
- D. 7

E. none of these

13.
$$x - (17)^2 - (13)^3 = \sqrt[3]{\frac{729}{343}} \times \frac{266}{153} \div \frac{76}{748}$$

- A. 2508
- **B. 2408**
- C. 2058
- D. 2008
- E. none of these

14. 133. 33% of 915 + 28. 56 % of 2401 = 38
$$\times$$
? +(2 \times 3)

A. 70

- **B.** 60
- C. 50
- D. 40

E. none of these

15.
$$4374.9 + 35.01 + 87.9 * 23.01 \div 45.9 = ? +12.9 * (3.7)^2$$

- A. 4346
- B. 4246
- C. 4146
- D. 4426

E. none of these

16.
$$(3.89)^3 + (7.66)^3 + (8.58)^2 = (?)^2 + (7.88 * 14.64) + (1.88)^3$$

- A. 23
- B. 33
- C. 13
- D. 27
- E. 37

17.
$$\sqrt{(17)^2 + 988\%}$$
 of $400 + (16)^2 + 167\%$ of $900 + (20)^2 = x$

- A. 60
- B. 90
- C. 70
- D. 80
- E. none of these

18.
$$\sqrt{? -(93 \times 4 + (12)^2 + (12)^3)} = 42 \frac{3}{4} + 7 \frac{1}{4}$$

- A. 4844
- B. 4674
- C. 4744
- D. 4474
- E. none of these

19.
$$\sqrt[3]{24388.99} + 59.8 \% \text{ of } 7405.01 + 323 \div 16.99 = 100x - 509$$

- A. 20
- B. 30
- C. 40
- D. 60

E. none of these

20.
$$(21.77)^2 + \sqrt{1368.99} + 74.44\%$$
 of 899.99 = 99.99 $x + (13.98)^2$

- A. 30
- **B. 10**
- C. 20
- D. 40

E. none of these

ANSWERS

- 1. D
- 2. B
- 3. C
- 4. E
- 5. E
- 6. C
- 7. B
- 8. D
- 9. B
- 10. C
- 11. D
- **12.** D
- 13. A
- 14. C
- **15.** B
- 16. A
- 17. D
- 18. C
- 19. E
- 20. B

SOLUTIONS:

1.
$$983.84 + (35.77)^2 - ? + 187.01 = 646.9 + (38.32)^2$$

$$984 + (36)^2 - ? + 187 = 647 + (38)^2$$

$$984 + 1296 - ? + 187 = 647 + 1444$$

$$? = 2467 - 2091$$

$$? = 376$$

2. 62. 5% of
$$6400 + (34)^2 + ? = 1888 + 4909$$

$$\frac{5}{8}$$
 * 6400 + 1156+? = 1888 + 4909

$$4000 + 1156 + ? = 1888 + 4909$$

$$? = 6797 - 5156$$

$$? = 1641$$

3.
$$(10)^3 + 82 \times 8 + ? = 85.71\%$$
 of $714 + (49)^2$

$$1000 + 656 + ? = \frac{6}{7} * 714 + 2401$$

$$1000 + 656 + ? = 612 + 2401$$

$$? = 1357$$

4.
$$\frac{1514}{7}$$
 + $(22)^2$ + $(10)^2$ = 239 × 4 + 88% of 2500 + (24×19)

$$\frac{1514}{?} + 484 + 100 = 956 + 2200 + 456$$

$$\frac{1514}{?} = 3028$$

$$? = \frac{1514}{3028}$$

$$? = \frac{1514}{3028}$$

$$? = \frac{1}{2}$$

5.
$$1412 + 83.33\%$$
 of $1140 - \sqrt[3]{3375} = ?^2 - (6 \times 9)$

$$1412 + \frac{5}{6} * 1140 - 15 = ?^2 - (54)$$

$$1412 + 950 - 15 = ?^2 - (54)$$

$$2401 = ?^2$$

$$6.5^{?} \times 625 \div 5^{3} = 65 \times 25 \times 125 \div 325$$

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$$5^? \times \frac{625}{5^3} = 65 \times 25 \times \frac{125}{325}$$

 $5^? = 5^3$
 $? = 3$

7.
$$16\frac{2}{3}$$
 % of 2160 + (27 × 19 × 5) = x^2 + 42. 84% of 672 + (51)²

$$\frac{1}{6} * 2160 + (2565) = x^2 + \frac{3}{7} * 672 + 2601$$

$$360 + (2565) = x^2 + 288 + 2601$$

$$36 = x^2$$

$$x = \pm 6$$

8.
$$(29^2 - 8^3 + \sqrt{961} + 23 \times 27 + 175)^{\frac{1}{2}} = x - \sqrt[3]{9^3 + 150.5 \times 4}$$

 $(841 - 512 + 31 + 621 + 175)^{\frac{1}{2}} = x - \sqrt[3]{729 + 602}$
 $(1156)^{\frac{1}{2}} = x - \sqrt[3]{1331}$
 $34 = x - 11$

9.
$$581\%$$
 of $500 + 5253 \div 3 \times 2 = 2x - 60 \times 3\frac{3}{12}$

$$581 * 5 + \frac{5253}{3} \times 2 = 2x - 60 \times \frac{39}{12}$$
$$2905 + 3502 = 2x - 195$$
$$2905 + 3502 + 195 = 2x$$
$$3301 = x$$

10.
$$(15 + 3\sqrt{5})^2 + 10 = ?\sqrt{5} + (19)^2 - \sqrt{6561}$$

225 + 45 + 90 $\sqrt{5}$ + 10 = $?\sqrt{5}$ + 361 - 81
280 + 90 $\sqrt{5}$ = $?\sqrt{5}$ + 280
90 $\sqrt{5}$ = $?\sqrt{5}$

$$? = 90$$

11.
$$355 - 71 \times 552 \div 6 + 1174 = x - 5487$$

$$355 - 71 \times \frac{552}{6} + 1174 = x - 5487$$

$$355 - 6532 + 1174 = x - 5487$$

$$484 = x$$

12.
$$\sqrt{4227 \div 3 + 13 \times 9 - 5} + \sqrt{5^2 \times 22 \div \sqrt[3]{1331} + 14} + 2 = x$$

$$\sqrt{\frac{4227}{3} + 117 - 5} + \sqrt{25 \times \frac{22}{11} + 14} + 2 = x$$

$$\sqrt{\sqrt{1409 + 117 - 5}} + \sqrt{50 + 14} + 2 = x$$

$$\sqrt{\sqrt{1521} + \sqrt{64} + 2} = x$$

$$\sqrt{39 + 8 + 2} = x$$

$$\sqrt{49} = x$$

$$7 = x$$

$$7 = x$$

13.
$$x - (17)^2 - (13)^3 = \sqrt[3]{\frac{729}{343}} \times \frac{266}{153} \div \frac{76}{748}$$

$$x - 289 - 2197 = \frac{9}{7} \times \frac{266}{153} * \frac{748}{76}$$

$$x - 289 - 2197 = 22$$

$$x = 2508$$

14. 133. 33% of 915 + 28. 56 % of 2401 = 38
$$\times$$
? +(2 \times 3)

$$\frac{4}{3}$$
 * 915 + $\frac{2}{7}$ * 2401 = 38 ×? +(6)

$$1220 + 686 = 38 \times ? + (6)$$

$$1900 = 38 \times ?$$

$$50 = ?$$

15.
$$4374.9 + 35.01 + 87.9 * 23.01 \div 45.9 = ? + 12.9 * (3.7)^{2}$$

$$4375 + 35 + 88 * 23 \div 46 = ? + 13 * (4)^{2}$$

$$4375 + 35 + 88 * \frac{23}{46} = ? + 13 * 16$$

$$4375 + 35 + 88 * \frac{1}{2} = ? + 208$$

$$4246 = ?$$
16. $(3.89)^{3} + (7.66)^{3} + (8.58)^{2} = (?)^{2} + (7.88 * 14.64) + (1.88)^{2}$

16.
$$(3.89)^3 + (7.66)^3 + (8.58)^2 = (?)^2 + (7.88 * 14.64) + (1.88)^3$$

$$(4)^3 + (8)^3 + (9)^2 = (?)^2 + (8 * 15) + 8$$

$$64 + 512 + 81 = (?)^2 + (120) + 8$$

$$529 = (?)^2$$

$$+ 23 = ?$$

17.
$$\sqrt{(17)^2 + 988\% \ of \ 400 + (16)^2 + 167\% \ of \ 900 + (20)^2} = x$$

$$\sqrt{289 + 3952 + 256 + 1503 + 400} = x$$

$$\sqrt{6400} = x$$

$$80 = x$$

$$18. \sqrt{? -(93 \times 4 + (12)^2 + (12)^3)} = 42 \frac{3}{4} + 7 \frac{1}{4}$$

$$\sqrt{? -(372 + 144 + 1728)} = 50$$

$$\sqrt{? -2244} = 50$$

Squaring both sides

$$? -2244 = 2500$$

 $? = 4744$

19.
$$\sqrt[3]{24388.99} + 59.8 \% \text{ of } 7405.01 + 323 \div 16.99 = 100x - 509$$

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$$\sqrt[3]{24389} + 60\% \text{ of } 7405 + 323 \div 17 = 100x - 509$$

$$29 + 4443 + 19 = 100x - 509$$

$$5000 = 100x$$

$$50 = x$$

$$20. (21.77)^2 + \sqrt{1368.99} + 74.44\% \text{ of } 899.99 = 99.99x + (13.98)^2$$

$$(22)^2 + \sqrt{1369} + 75\% \text{ of } 900 = 100x + (14)^2$$

$$484 + 37 + 675 = 100x + 196$$

$$1000 = 100x$$

$$10 = x$$

AASHISH ARORA



2. ARITHMETIC QUESTIONS

CHECKLIST

1. A and B invested in a business in the ratio 3: 4 respectively for one year. The time periods of A and B is in the ratio 2:3. If the profit share of B is Rs. 4500, then find the total profit if they continue the business for 2 more years?

A और B ने एक व्यवसाय में एक वर्ष के लिए क्रमशः 3:4 के अनुपात में निवेश किया। A और B की समयाविधयों का अनुपात 2:3 है। यदि B का लाभ हिस्सा रु. यदि वे व्यवसाय को 4500 और दो वर्षों तक जारी रखते हैं, तो कुल लाभ ज्ञात कीजिए?

- (A)20000
- (B)20250
- (C)21500
- (D)22500
- (E)None of these
- 2. The distance between two places X and Y is 450 km. The first car departs from place X to Y, at a speed of 60 kmph at 11 am and

second car departs from place Y to X at a speed of 30 kmph at 2 pm. At what time both cars meet each other?

दो स्थानों X और Y के बीच की दूरी 450 किमी है। पहली कार सुबह 11 बजे स्थान X से Y की ओर 60 किमी प्रति घंटे की गति से प्रस्थान करती है और दूसरी कार दोपहर 2 बजे स्थान Y से X की ओर 30 किमी प्रति घंटे की गति से प्रस्थान करती है। दोनों कारें किस समय एक दूसरे से मिलती हैं?

- (A)4:00 PM
- (B)3:30 PM
- (C)4:30 PM
- (D)5:00 PM
- (E)None of these
- 3. If 150 km is travelled by downstream in 6 hours and the ratio between speed of boat in still water to the speed of stream is 3 : 2. then find the difference between speed of boat in still water and speed of stream?

यदि धारा के अनुकूल 150 किमी की दूरी 6 घंटे में तय की जाती है और शांत पानी में नाव की गति और धारा की गति के बीच का अनुपात 3:2 है, तो शांत पानी में नाव की गति और धारा की गति के बीच अंतर ज्ञात करें?

- (A)2 km/h
- (B)5 km/h
- (C)4 km/h
- (D)7 km/h
- (E)None of these
- 4. Rahul had a sum of Rs. 9000. He invested some amount in scheme A at CI at 10% and the remaining amount in scheme B at SI at 21%. If he got the same interest from both the investments at the end of two year. What is the difference between amount invested in scheme A and amount invested in scheme B?

राहुल के पास रुपये की राशि थी. 9000. उसने कुछ राशि स्कीम A में 10% CI पर निवेश की और शेष राशि स्कीम B में 21% पर SI पर निवेश की। यदि उसे दो वर्ष के अंत में दोनों निवेशों से समान ब्याज मिलता है। योजना A में निवेश की गई राशि और योजना B में निवेश की गई राशि के बीच क्या अंतर है?

- (A)3500
- (B)4500
- (C)5000
- (D)3000
- (E)None of these
- 5. A train passes a platform in 90 sec and a man standing on the platform in 20 sec. If the speed of the train is 90 km/hr, what is the length of the platform?
 एक ट्रेन एक प्लेटफॉर्म को 90 सेकंड में पार करती है और प्लेटफॉर्म पर खड़े

एक ट्रन एक प्लटफाम का 90 सकड म पार करता ह आर प्लटफाम पर खड़ एक व्यक्ति को 20 सेकंड में पार करती है। यदि ट्रेन की गति 90 किमी/घंटा है, तो प्लेटफॉर्म की लंबाई क्या है?

- (A)1600 m
- (B)1500 m
- (C)1750 m
- (D)1700 m
- (E)None of these
- 6. After selling an item for Rs. 1350 a shopkeeper suffers a loss of 10%. If he wants to earn 25% profit after giving the discount of 22%, then by what percent he should mark up the price? किसी वस्तु को रुपये में बेचने के बाद। 1350 रुपये के एक दुकानदार को 10% की हानि होती है। यदि वह 22% की छूट देने के बाद 25% लाभ कमाना चाहता है, तो उसे कीमत कितने प्रतिशत अधिक अंकित करनी चाहिए?
 - (A)45%
 - (B)60%

- (C)55.55%
- (D)66.66%
- (E)None of these
- 7. The speed of a boat in still water is 14 km/hr. If it can travel 100 km downstream and 40 km upstream in the same time, the speed of the stream is?

शांत पानी में एक नाव की गति 14 किमी/घंटा है। यदि यह एक ही समय में धारा के अनुकूल 100 किमी और धारा के प्रतिकूल 40 किमी की यात्रा कर सकती है, तो धारा की गति क्या है?

- (A)6 km/h
- (B)5 km/h
- (C)6 km/h
- (D)7 km/h
- (E)None of these
- 8. In a mixture, the ratio of the acid and water is 3 : 2. When 17 litre mixture are replaced by water, the ratio becomes 5 : 9. Find the quantity of mixture before replacement.

एक मिश्रण में अम्ल और पानी का अनुपात 3:2 है। जब 17 लीटर मिश्रण को पानी से प्रतिस्थापित किया जाता है, तो अनुपात 5:9 हो जाता है। प्रतिस्थापन से पहले मिश्रण की मात्रा ज्ञात करें।

- (A)46 litre
- (B)45 litre
- (C)42 litre
- (D)28 litre
- (E)None of these

- 9. The average weight of a class of 10 students is increased by 2.5kg, when one student whose weight is 40 kg is replaced by a new student, then find the weight of the new student.
 10 छात्रों की एक कक्षा का औसत वजन 2.5 किलोग्राम बढ़ जाता है, जब 40 किलोग्राम वजन वाले एक छात्र के स्थान पर एक नया छात्र आ जाता है, तो नए छात्र का वजन ज्ञात करें।
 - (A)65 kg
 - (B)58 kg
 - (C)55 kg
 - (D)48 kg
 - (E)None of these
- 10. A bag contains 7 blue and 4 red balls. Two ball is drawn with replacement. What is the probability that both the ball drawn is of same colour?

एक बैग में 7 नीली और 4 लाल गेंदें हैं। प्रतिस्थापन के साथ दो गेंदें निकाली जाती हैं। इसकी क्या प्रायिकता है कि निकाली गई दोनों गेंदें लाल हैं?

- (A)16/141
- (B)12/120
- (C)16/121
- (D)19/221
- (E)None of these
- 11. The ratio of the ages of Ravi and Shyam is 3:5 and the ratio of the ages of Shyam and Amar is 4:1. If Amar is 14 years younger than Ravi. What will be the age of Shyam after 10 years? रवि और श्याम की आयु का अनुपात 3:5 है और श्याम और अमर की आयु का अनुपात 4:1 है। यदि अमर, रवि से 14 वर्ष छोटा है। 10 वर्ष बाद श्याम की आयु क्या होगी?
 - (A)50

- (B)30
- (C)45
- (D)60
- (E)None of these
- 12. The area of the rectangle is 18.18% less than the area of the circle in which the length of the rectangle is 21 cm and the radius of the circle is 14 cm. Find the perimeter of the rectangle. आयत का क्षेत्रफल वृत्त के क्षेत्रफल से 18.18% कम है जिसमें आयत की लंबाई 21 सेमी और वृत्त की त्रिज्या 14 सेमी है। आयत का परिमाप ज्ञात कीजिए।
 - (A)75 cm
 - (B)85 cm
 - (C)80 cm
 - (D)90 cm
 - (E)None of these
- 13. M and N can do a piece of work in 24 days and 30 days respectively. They began working together but M leaves after some days and then N completed the remaining work in 12 days. The number of days after which M left the work was?

 M और N एक काम को क्रमशः 24 दिन और 30 दिन में कर सकते हैं। उन्होंने एक साथ काम करना शुरू किया लेकिन M कुछ दिनों के बाद काम छोड़ देता है और फिर N ने शेष काम 12 दिनों में पूरा कर लिया। कितने दिनों के बाद M ने काम छोड़ दिया?
 - (A)6 days
 - **(B)8 days**
 - (C)12 days
 - (D)11 days
 - (E)None of these

- 14. The ratio of the speeds of the train and the man is 14:9. The train's length is 420m and crosses a pole in 1 minute. Find the time in which the man cross the 360m long platform? ट्रेन और आदमी की गति का अनुपात 14:9 है। ट्रेन की लंबाई 420 मीटर है और 1 मिनट में एक खंभे को पार करती है। वह समय ज्ञात कीजिए जिसमें आदमी 360 मीटर लंबे प्लेटफार्म को पार करता है?
 - (A)70 sec
 - (B)40 sec
 - (C)60 sec
 - (D)80 sec
 - (E)None of these
- 15. The average age of 22 students in a group is 9 years. When the teacher's age is included the average increases by 2. What is the teacher's age?

एक समूह में 22 छात्रों की औसत आयु 9 वर्ष है। जब शिक्षक की आयु शामिल की जाती है तो औसत 2 बढ़ जाता है। शिक्षक की आयु क्या है?

- (A)50
- (B)55
- (C)58
- (D)59
- (E)None of these
- 16. There are total 12 balls in a bag, 4 are blue, 3 are green and 5 are yellow in colour. If a man picks two balls randomly from the bag, then what will be the probability that none of the ball drawn is of green colour?

एक थैले में कुल 12 गेंदें हैं, 4 नीली, 3 हरी और 5 पीले रंग की हैं। यदि एक आदमी थैले से याद्यच्छिक रूप से दो गेंदें निकालता है, तो इसकी क्या प्रायिकता होगी कि निकाली गई कोई भी गेंद हरे रंग की नहीं है? (A)9/11

(B)7/11

(C)8/11

(D)6/11

(E)None of these

17. Three persons A, B, and C complete a piece of work in 8 days for which they are paid a sum of Rs. 720. If the efficiency of A, B and C are in ratio 6: 4:5, then find the daily income of A? तीन व्यक्ति A, B और C एक काम को 8 दिनों में पूरा करते हैं जिसके लिए उन्हें रुपये का भुगतान किया जाता है। 720. यदि A, B और C की कार्यक्षमता 6: 4: 5 के अनुपात में है, तो A की दैनिक आय ज्ञात की जिये?

(A)55/-

(B)36/-

(C)58/-

(D)40/-

(E)None of these

18. Price of Type A of rice is Rs.80 and type B of rice is Rs. 140. In what ratio should both be mixed so as to gain a profit of 25% after selling it at Rs.140.

टाइप ए चावल की कीमत 80 रुपये और टाइप बी चावल की कीमत 80 रुपये है। 140. दोनों को किस अनुपात में मिलाया जाए कि 140 रुपए में बेचने पर 25% का लाभ हो।

(A)6:7

(B)7:8

(C)1:2

- (D)2:3
- (E)None of these
- 19. A man goes downstream and then returns to his original place in 7 hours. If the speed of the man in still water is 8Km/hr and the speed of the stream is 4Km/hr, Find the total distance travelled by him?

एक आदमी धारा के अनुकूल जाता है और फिर 7 घंटे में अपने मूल स्थान पर लौट आता है। यदि शांत पानी में आदमी की गति 8 किमी/घंटा है और धारा की गति 4 किमी/घंटा है, तो उसके द्वारा तय की गई कुल दूरी ज्ञात कीजिए?

- (A)45 km
- (B)38 km
- (C)40 km
- (D)42 km
- (E)None of these

AASHISH

Answers

- (1) (b)
- (2) (d)
- (3) (b)
- (4) (d)
- (5) (c)
- (6)(d)
- (7) (c)
- (8) (c)
- (9) (a)

- (10) (e)
- (11) (a)
- (12) (d)
- (13) (b)
- (14) (d)
- (15) (b)
- (16) (d)
- (17) (b)
- (18) (b)
- (19) (d)
 - 1. Inv. 3:4
 - Time. 2:3
 - **Profit** 1:2

Here 2 parts value given equal to 4500, so total profit will be 3 parts i.e. $(4500/2) \times 3 = 6750(1 \text{ year profit})$

And if they continued the business for 2 more years is 6750+6750+6750 = 20250.

2. Till 2 pm the first car will travel a distance = 3h×60kmph = 180 Km.

Remaining distance = 450 - 180 = 270 km.

Now from 2 pm, 270 km will be travel by both the cars coming in opposite directions, so their speed will be 60+30 = 90 kmph.

Time taken by them = 270 km/90 kmph = 3 Hours.

So 2 pm + 3 hours = 5 pm.

3. According to que, 150/3u+2u=6, 1u=5, difference between speed of boat in still water and speed of stream = 3u-2u=1u, i.e. 5 kmph

4. According to que, let he invested x Rs. amount in scheme A at CI at 10% for two years and (9000-x) Rs. at SI at 21% for two years,

$$x \times 21/100 = (9000-x) \times 42/100$$
, so $x = 6000$
so amount invested in scheme $B = 9000-x = 9000-6000 = 3000$.

- 5. train passes a men standing on the platform in 20 sec. so Distance travelled(train's length) = 90×(5/18)×20 = 500 m therefore (length of the platform+ 500) = 90×(5/18)×90 (length of the platform+ 500) = 2250 So length of the platform = 1750 m
- 6. After selling an item for Rs. 1350 a shopkeeper suffers a loss of 10%

i.e. he sold the item at the 90% of the CP, i.e. 9/10 = 1350, so CP = $1350 \times 10/9 = 1500$. Now, If he wants to earn 25% profit then SP will be $1500 \times 125/100 = 1875$ & if after giving the discount of 25% on MP then, MP×75/100 = 1875, so MP = 2500. then the percent by which he should mark up the price = {(MP - CP)/CP}×100 = $(1000/1500) \times 100 = 66.66\%$

CP	MP	SP
1500	2500	1875

- 7. According to que: 100/x+y = 40/x-y and speed of boat in still water is 14 km/hr, so 100/14+y = 40/14-yBy option, we get that y = 6 satisfy the above equation, so speed of the stream(y) = 6 km/h
- 8. Acid : Water

3 : 2

After 17 litre mixture is replaced, the ratio of mixture should remain same and after adding 17 litre water it became 5:9 but we didn't added the acid so quantity of acid should remain same by balancing the ratios,

3:2 (here multiply by 5 on both sides), so 15u:10u

5:9(here multiply by 3 on both sides) 15u:27u

27u - 10u = 17u, i.e. 17u = 17 litre and 1u = 1 litre So quantity of mixture before replacement = 15u + 10u + 17 = 42 litre

- 9. average weight of a class of 10 students is increased by 2.5kg so sum will be increased by $10\times5/2 = 25$ kg. when one student whose weight is 40 kg is replaced by a new student so, new student's weight 40 kg = 25 kg, so new student's weight = 65 kg.
- 10. Total possible outcome = ${}^{11}C_2 = 11 \times 10/2 \times 1 = 55$

And favourable cases = ${}^{7}C_{2} + {}^{4}C_{2} = 27$ So probability that both the ball drawn are of same color = 27/55.

11. According to que, Ravi : Shyam : Amar 3 5 4 1 Balancing, 12 20 5

Amar is 14 years younger than Ravi so 7u = 14 years and 1u = 2 years. Therefore age of Shyam after 10 years will be = 20u + 10 = 40+10 = 50 years.

12. area of the rectangle is 18.18% less than the area of the circle i.e. area of the rectangle : area of the circle = 9u : 11u

now we are given with radius of the circle is 14 cm so area of the circle = $(22/7)\times14\times14 = 616$ cm². So 11u = 616 and 1u = 56, therefore area of the rectangle(9u) = 504 cm² and length×breadth = 504, $21\times$ breadth = 504, so breadth = 24 cm. therefore perimeter of the rectangle = $2(l+b) = 2\times45 = 90$.

So N completed the remaining work in 12 days, so remaining work = $12\times4 = 48$ units. So earlier 120 - 48 = 72 units work had done by M & N together in 72/9 = 8 days. So number of days after which M left the work was 8 days.

- 14. train's length is 420m and crosses a pole in 1 minute so speed of train = 420m/60sec = 7 m/sec. ratio of the speeds of the train and the man is 14u : 9u so 14u = 7 m/sec so $1u = \frac{1}{2} m/sec$ and $9u = \frac{9}{2} m/sec$. so the time in which the man cross the 360m long platform = $360/(\frac{9}{2}) = 80$ seconds.
- 15. average age of 22 students in a group is 9 years so sum = 22×9 = 198 and When the teacher's age is included the average increases by 2 so sum = 23×11 = 253. So teacher's age = 253 198 = 55 years.
- 16. Total possible outcomes = ${}^{12}C_2 = 12 \times 11/2 \times 1 = 66$

Favourable cases : none of the drawn ball is of green color = ${}^{9}C_{2}$ = 36

So probability that none of the drawn ball is of green color = 36/66 = 6/11

17. Sum will be distributed in the ratio of their efficiency so income of A = $720 \times 6/15 = 288$. So the daily income of A = 288/8 = 36 Rs.

18. to gain a profit of 25% after selling it at Rs.140 here SP 140 so CP : SP = 4u : 5u so 5u = 140, & 1u = 28 so CP (4u) = 112

Now by allegation

80 140

112

28 32

So ratio in which both be mixed will be 28:32=7:8.

19. man goes downstream and then returns to his original place in 7 hours

so D/12 + D/4 = 7, multiplying both sides of the equation by 12, we get

D + 3D = 84, & 4D = 84 & D = 21 km

So total distance travelled = D+D = 42 Km.

CHECKLIST BY

3. Quadratic Equations

(1) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. 12x^2 + 17x + 14 = 0$$

II.
$$9y^2 - 44y + 32 = 0$$

(a)
$$x > y$$

(b)
$$x < y$$

(c) x = y or the relationship cannot be established

(d)
$$x \ge y$$

- (e) $x \le y$
- (2) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. 32x^2 - 30x + 7 = 0$$

II.
$$6y^2 + 17y - 3 = 0$$

- (a) x > y
- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- (e) $x \le y$
- (3) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. 25x^2 - 51x + 2 = 0$$

II.
$$y^2 - 9y + 18 = 0$$

- (a) x > y
- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- **(e)** x ≤ y
- (4) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. x^2 - 19x + 84 = 0$$

II.
$$y^2 + 7y - 78 = 0$$

- (a) x > y
- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- (e) $x \le y$
- (5) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. 5x^2 - 19x + 18 = 0$$

II.
$$2y^2 - 11y + 15 = 0$$

- (a) x > y
- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- (e) $x \le y$
- (6) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

I.
$$x^2 - 13x + 40 = 0$$

II.
$$y^2 + 13y - 48 = 0$$

- (a) x > y
- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- (e) $x \le y$

(7) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

I.
$$7x^2 - 16x + 4 = 0$$

II.
$$2y^2 - 13y + 21 = 0$$

(a)
$$x > y$$

- **(b)** x < y
- (c) x = y or the relationship cannot be established

(d)
$$x \ge y$$

- **(e)** x ≤ y
- (8) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. x^2 - 17x + 52 = 0$$

II.
$$y^2 + 11y - 60 = 0$$

(a)
$$x > y$$

(b)
$$x < y$$

(c) x = y or the relationship cannot be established

(d)
$$x \ge y$$

(e)
$$x \le y$$

(9) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. x^2 - 15x + 54 = 0$$

II.
$$y^2 + 12y - 85 = 0$$

(a)
$$x > y$$

- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- (e) $x \le y$
- (10) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. 5x^2 + 44x - 192 = 0$$

II.
$$2y^2 - 17y + 36 = 0$$

- (a) x > y
- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- **(e)** x ≤ y
- (11) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between \mathbf{x} and \mathbf{y} and choose the correct option.

$$I. x^2 - 16x + 48 = 0$$

II.
$$y^2 - 8y - 65 = 0$$

- (a) x > y
- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- **(e)** x ≤ y

(12) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. x^2 + 13x - 68 = 0$$

II.
$$y^2 - 19y + 60 = 0$$

(a)
$$x > y$$

- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- (e) $x \le y$
- (13) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. x^2 - 19x + 88 = 0$$

II.
$$y^2 + 10y - 119 = 0$$

(a)
$$x > y$$

- (b) x < y
- (c) x = y or the relationship cannot be established

(d)
$$x \ge y$$

- (e) $x \le y$
- (14) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. x^2 - 14x + 40 = 0$$

II.
$$y^2 + 10y - 39 = 0$$

(a)
$$x > y$$

- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- (e) $x \le y$
- (15) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. x^2 - 11x + 18 = 0$$

II.
$$y^2 + 9y - 22 = 0$$

- (a) x > y
- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- (e) $x \le y$
- (16) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. \ 10x^2 - 39x + 27 = 0$$

II.
$$2y^2 - 23y + 60 = 0$$

- (a) x > y
- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- **(e)** x ≤ y

(17) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. x^2 - 17x + 42 = 0$$

II.
$$y^2 + 15y - 54 = 0$$

(a)
$$x > y$$

- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- **(e)** x ≤ y
- (18) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. x^2 - 19x + 60 = 0$$

II.
$$y^2 + 14y - 72 = 0$$

(a)
$$x > y$$

(b)
$$x < y$$

(c) x = y or the relationship cannot be established

(d)
$$x \ge y$$

(e)
$$x \le y$$

(19) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. x^2 - 15x + 54 = 0$$

II.
$$y^2 + 7y - 60 = 0$$

(a)
$$x > y$$

- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- (e) $x \le y$
- (20) In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

$$I. x^2 - 20x + 51 = 0$$

II.
$$y^2 + 13y - 30 = 0$$

- (a) x > y
- (b) x < y
- (c) x = y or the relationship cannot be established
- (d) $x \ge y$
- (e) $x \le y$

Answers:

- (1) b
- (2) a
- (3) b
- (4) a
- (5) b
- (6) a
- (7) b
- (8) d
- (9) a
- (10) b

- (11) c
- (12) e
- (13) a
- (14) a
- (15) d
- (16) b
- (17) d
- (18) d
- (19) a
- (20) a

Solutions:

(1)
$$x = 7/12, -2$$

$$y = 8/9, 4$$

(2)
$$x = 7/16$$
, $1/2$

$$y = 1/6, -3$$

$$(3)$$
 x= $1/25$, 2

$$y = 3, 6$$

(4)
$$x = 7, 12$$

$$y = 6, -13$$

$$(5) x = 9/5, 2$$

$$y = 3, 5/2$$

(6)
$$x = 8, 5$$

$$y = -16, 3$$

$$(7) x = 2/7, 2$$

$$y=3,7/2$$

(8)
$$x = 13, 4$$

$$y = -15, 4$$

$$(9) x = 6, 9$$

$$y = 5, -17$$

$$(10) x = 16/5, -12$$

$$y = 12, 4$$

$$(11) x = 12, 4$$

$$y = -5, 13$$

$$(12) x = -17, 4$$

$$y = 4, 15$$

$$(13) x = 11, 8$$

$$y = 7, -17$$

$$(14) x = 4, 10$$

$$y = 3, -13$$

$$(15) x = 2, 9$$

$$y = 2, -11$$

$$(16) x = 9/10, 3$$

$$y = 4, 15/2$$

$$(17) x = 14, 3$$

$$y = 3, -18$$

$$(18) x = 15, 4$$

$$y = 4, -18$$

$$(19) x = 6, 9$$

$$y = 5, -12$$

$$(20) x = 17, 3$$

$$y = -15, 2$$



4. WRONG NUMBER SERIES

- (1) 1684, 840, 416, 202, 96
- (a) 39
- (b) 1684
- (c) 96
- (d) 436
- (e) None of these

- (2) 5, 7.5, 15, 37.5, 112.5, 392.75
- (a) 112.5
- (b) 7.5
- (c) 37.5
- (d) 392.75
- (e) None of these
- (3) 16, 23, 32, 43, 56, 72
- (a) 72
- (b) 43
- (c) 23
- (d) 56
- (e) None of these
- (4) 181, 182, 186, 195, 211, 232
- (a) 213
- (b) 232
- (c) 186
- (d) 181
- (e) None of these
- (5) 213, 230, 253, 284, 325, 376
- (a) 325
- (b) 213
- (c) 253
- (d) 376
- (e) None of these
- (6) 78, 86, 95, 159, 186, 400
- (a) 186

- (b) 78
- (c) 95
- (d) 400
- (e) None of these
- (7) 11, 23, 47, 95, 191, 385
- (a) 11
- (b) 281
- (c) 385
- (d) 23
- (e) None of these
- (8) 18, 10, 16, 41, 144.5, 652.25
- (a) 144.5
- (b) 41
- (c) 18
- (d) 652.25
- (e) None of these
- (9) 641, 651, 671, 711, 791, 961
- (a) 711
- (b) 671
- (c) 961
- (d) 641
- (e) None of these
- (10) 143, 287, 456, 652, 877, 1132
- (a) 877
- (b) 1132
- (c) 287

- (d) 456
- (e) None of these
- (11) 9, 26, 65, 124, 217, 344
- (a) 344
- (b) 124
- (c) 65
- (d) 9
- (e) None of these
- (12) 96, 100, 108, 120, 136, 157
- (a) 120
- (b) 157
- (c) 96
- (d) 100
- (e) None of these
- (e) None or unesc (13) 114, 138, 166, 197, 234, 275
- (b) 275
- (c) 166
- (d) 138
- (e) None of these
- (14) 19, 11, 30, 41, 71, 114
- (a) 30
- (b) 71
- (c) 114
- (d) 19
- (e) None of these

- (15) 6, 2, 4, 9, 32.5, 144.25
- (a) 32.5
- **(b)** 6
- (c) 32.5
- (d) 144.25
- (e) None of these
- (16) 24, 50, 102, 206, 414, 840
- (a) 102
- (b) 206
- (c) 414
- (d) 840
- (e) None of these
- (17) 936, 984, 1040, 1104, 1176, 1252
- (a) 1252
- (b) 1104
- (c) 936
- (d) 1040
- (e) None of these
- (18) 714, 716, 722, 746, 866, 1584
- (a) 746
- (b) 866
- (c) 1584
- (d) 714
- (e) None of these
- (19) 28, 8, 6, 10, 28, 112
- (a) 28

- (b) 112
- (c) 10
- (d) 8
- (e) None of these
- (20) 76, 105, 163, 250, 366, 512
- (a) 512
- (b) 163
- (c) 105
- (d) 76
- (e) None of these

Answers:

- (1) c
- (2) d
- (3) a
- (4) b
- (5) d
- (6) a
- (7) c
- (8) d
- (9) c
- (10) b
- (11) a
- (12) b
- (13) d
- (14) c
- (15) d

- (16) d
- (17) a
- (18) c
- (19) b
- (20) a

Solutions:

$$(1)*1/2-2,*1/2-4,*1/2-6,*1/2-8,*1/2-10$$

$$(3) +7, +9, +11, +13, +15$$

$$(4)$$
 +1², +2², +3², +4², +5²

$$(6) +2^3, +3^2, +4^3, +5^2, +6^3$$

$$(9) +10, +20, +40, +80, +160$$

$$(10)$$
 +12², +13², +14², +15², +16²

$$(11)$$
 $2^3 + 1$, $3^3 - 1$, $4^3 + 1$, $5^3 - 1$, $6^3 + 1$, $7^3 - 1$

$$(12)$$
 +4, +8, +12, +16, +20

$$(13)$$
 +23, +29, +31, +37, +41

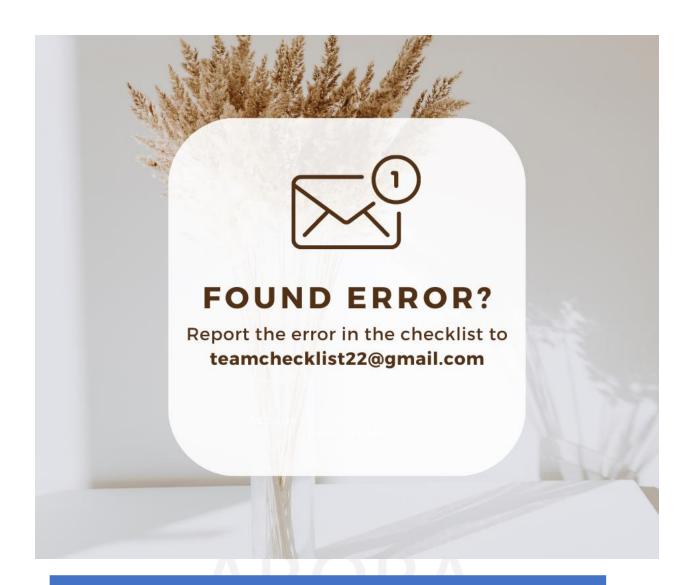
(14) Sum of previous two numbers

$$(15)*0.5 - 1, *1.5 + 1, *2.5 - 1, *3.5 + 1, *4.5 - 1$$

$$(17)$$
 +48, +56, +64, +72, +80

$$(18) +2!, +3!, +4!, 5!, +6!$$

(20) +29, +58, +87, +116



5. MISSING NUMBER SERIES

(1) 129, 165, ?, 306, 333, 337

(a) 290

- (b) 296
- (c) 305
- (d) 320
- (e) None of these
- (2) 424, 448, 475, 508, 550, ?
- (a) 624
- (b) 704
- (c) 604
- (d) 620
- (e) None of these
- (3) 61, 781, 901, 925, ?, 933
- (a) 931
- (b) 804
- (c) 702
- (d) 602
- (e) None of these
- (4) 804, 816, 831, 843, ?, 879
- (a) 668
- (b) 858
- (c) 560
- (d) 960
- (e) None of these
- (5) 721, 724, 733, ?, 841, 1084
- (a) 760
- (b) 780
- (c) 810

- (d) 840
- (e) None of these
- (6) 972, 1188, 1531, 2043, 2772, ?
- (a) 3652
- **(b)** 3772
- (c) 3992
- (d) 2882
- (e) None of these
- (7) 603, 624, 649, 682, 731, ?
- (a) 724
- (b) 824
- (c) 812
- (d) 900
- (e) None of these
- (8) 42, 63, 157.5, 551.25, 2480.625, ?
- (a) 13643.4375
- (b) 11453.4275
- (c) 12496.6255
- (d) 17856.0625
- (e) None of these
- (9) 3, 8, 19, 42, 89, ?
- (a) 192
- (b) 184
- (c) 172
- (d) 160
- (e) None of these

- (10) 65, 81, 145, 289, 545, ?
- (a) 905
- (b) 855
- (c) 945
- (d) 985
- (e) None of these
- (11) 94, 110, 62, 142, 30, ?
- (a) 174
- (b) 194
- (c) 204
- (d) 234
- (e) None of these
- (12) 171, 180, 195, 217, 247, ?
- (a) 386
- (b) 306
- (c) 276
- (d) 286
- (e) None of these
- (13) 692, 709, 733, 771, 837, ?
- (a) 959
- (b) 908
- (c) 731
- (d) 809
- (e) None of these
- (14) 619, ?, 695, 790, 923, 1094
- (a) 658

- (b) 638
- (c) 608
- (d) 678
- (e) None of these
- (15) 291, 412, 556, 725, 921, ?
- (a) 1146
- (b) 1126
- (c) 1046
- (d) 1876
- (e) None of these
- (16) 17, 9, 10, 22, ?, 744
- (a) 90
- (b) 82
- (c) 92
- (d) 96
- (e) None of these
- (17) 807, 809, 818, 846, 911, ?
- (a) 1057
- (b) 1037
- (c) 1047
- (d) 1157
- (e) None of these
- (18) 92, 99, 113, 141, 197, 309, ?
- (a) 504
- (b) 573
- (c) 533

- (d) 579
- (e) None of these
- (19) 609, 624, 636, 651, 663, ?
- (a) 681
- (b) 669
- (c) 679
- (d) 729
- (e) None of these
- (20) 6.5, 13, 16, 80, 87, ?
- (a) 900
- (b) 957
- (c) 807
- (d) 907
- (e) None of these

Answers:

- (1) a
- (2) c
- (3) a
- (4) b
- (5) a
- (6) b
- (7) c
- (8) a
- (9) b
- (10) c

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- (11) a
- (12) d
- (13) a
- (14) b
- (15) a
- (16) c
- (17) b
- (18) c
- (19) e
- (20) b

Solutions:

$$(1)$$
 +6², +5³, +4², +3³, +2²

$$(2) +24, +27, +33, +42, +54 (+3, +6, +9, +12)$$

$$(3) +6!, +5!, +4!, +3!, +2!$$

(4) Adding the sum of digits of previous number

$$(5)$$
 +3¹, +3², +3³, +3⁴, +3⁵

$$(6) +6^3$$
, $+7^3$, $+8^3$, $+9^3$, $+10^3$

$$(10)$$
 +4², +8², +12², +16², +20²

$$(12) +9, +15, +22, +30, +39 (+6, +7, +8, +9)$$

$$(13) +17, +24, +38, +66, +122 (+7, +14, +28, +56)$$

 $(15) + 11^2, +12^2, +13^2, +14^2, +15^2$

(16) *0.5+0.5, *1+1, *2+2, *4+4, *8+8

(17) $(+1^3+1)$, $+(2^3+1)$, $+(3^3+1)$, $+(4^3+1)$, $+(5^3+1)$

(18) +7, +14, +28, +56, +112, +224

(19) Adding the sum of digits of previous number

(20) *2, +3, *5, +7, *11

CHECKLISI
BY

AASHISH ARORA

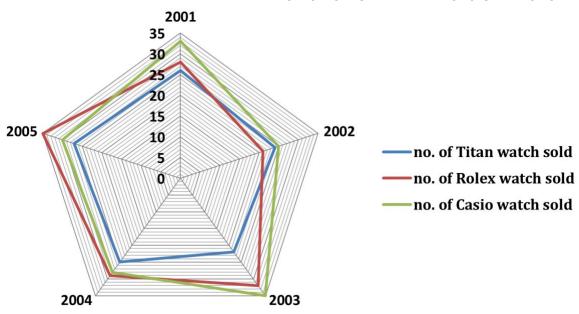
CHECKLIST

6. DATA INTERPRETATION

AASHISH

SET 1. The radar graph shows the number of watches (in 1000's) sold of three different brands in five years. Read the data and answer the following questions.

रडार ग्राफ पांच वर्षों में तीन अलग-अलग ब्रांडों की बेची गई घड़ियों की संख्या (1000 में) दर्शाता है। डेटा पढ़ें और निम्नलिखित प्रश्नों के उत्तर दें।



1. The number of titan watch sold in 2002 is what percent of number of rolex watch sold in 2002?

2002 में बेची गई टाइटन घड़ियों की संख्या, 2002 में बेची गई रोलेक्स घड़ियों की संख्या का कितना प्रतिशत है?

- (A)114.24%
- (B)122.22%
- (C)125%
- (D)99.99%
- (E)None of these
- 2. Find the difference between average number of titan watch sold and average number of rolex watch sold.

बेची गई टाइटन घड़ियों की औसत संख्या और बेची गई रोलेक्स घड़ियों की औसत संख्या के बीच अंतर ज्ञात कीजिए।

(A)4500

(B)4100

- (C)4200
- (D)4900
- (E)None of these
- 3. Find the ratio between number of casio watch sold in 2003 and 2004.
 - 2003 और 2004 में बेची गई कैसियो घड़ियों की संख्या के बीच अनुपात ज्ञात कीजिए।
 - (A)4:5
 - (B)4:7
 - (C)5:4
 - (D)2:3
 - (E)None of these
- 4. In 2001, the ratio of male & female to whom number of titan watch, rolex watch and casio watch sold is 7:6,4:3 and 6:5, then number of rolex watch sold to females is how much more or less than number of casio watch sold to females?
 2001 में, पुरुषों और महिलाओं का अनुपात, जिन्हें बेची गई टाइटन घड़ियों, रोलेक्स घड़ियों और कैसियो घड़ियों की संख्या 7:6,4:3 और 6:5 है, तो महिलाओं को बेची गई रोलेक्स घड़ियों की संख्या महिलाओं को बेची गई कैसियो घड़ियों की संख्या महिलाओं को बेची गई
 - (A)5000 less
 - (B)3000 less
 - (C)2000 less
 - (D)4000 less
 - (E)None of these

- 5. The number of rolex watch sold in 2004 & 2005 is what percent(approx.) more or less than total number of rolex watch sold in all five years? 2004 और 2005 में बेची गई रोलेक्स घड़ियों की संख्या सभी पाँच वर्षों में बेची गई रोलेक्स घड़ियों की कुल संख्या से कितना प्रतिशत (लगभग) अधिक या कम
 - (A)56% less
 - (B)52% less
 - (C)59% less
 - (D)51% less
 - (E)None of these

Answers

Year	no. of Titan watch	no. of Rolex watch	no. of Casio watch	Total
2001	sold 26000	sold 28000	33000	87000
2002	24000 22000	21000 32000	25000 35000	70000 89000
2004 2005	25000 27000	29000 35000	28000 30000	82000 92000
	124000	145000	151000	420000

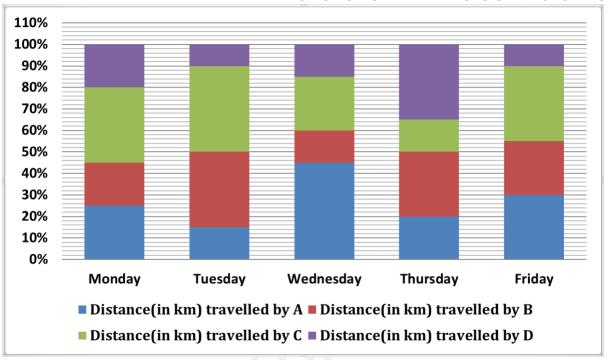
- 1. (A)114.24% 2. (C)4200
- 2. (C)4200
- 3. (C)5:4
- 4. (B)3000 less
- 5. (A)56% less

CHECKLIST

SET 2. The bar graph show the percentage distribution of distance travelled of four people on five days of a week. The total distance travelled by all of them together on Monday, Tuesday, Wednesday, Thursday & Friday is 160, 120, 80, 140 & 100 respectively. Read the data and answer the following questions.

बार ग्राफ एक सप्ताह के पांच दिनों में चार लोगों द्वारा तय की गई दूरी का प्रतिशत वितरण दर्शाता है। सोमवार, मंगलवार, बुधवार, गुरुवार और शुक्रवार को उन सभी द्वारा एक साथ तय की गई कुल दूरी क्रमशः 160, 120, 80, 140 और 100 है। डेटा पढ़ें और निम्नलिखित प्रश्नों के उत्तर दें।

ARORA



1. On Monday A and D travelled with a speed of 10 km/h and 4 km/h respectively, then time taken by A to cover the given distance is what percent of time taken by D to cover the given distance on Monday?

सोमवार को A और D ने क्रमशः 10 किमी/घंटा और 4 किमी/घंटा की गति से यात्रा की, तो A द्वारा दी गई दूरी तय करने में लिया गया समय D द्वारा सोमवार को दी गई दूरी तय करने में लिए गए समय का कितना प्रतिशत है?

- (A)50%
- (B)45%
- (C)40%
- (D)35%
- (E)None of these
- 2. On Tuesday, Person C travels 25% of the distance by train, 50% of the remaining distance by bus and the rest of the distance by foot and the time for which they travelled by train, bus & foot is in the ratio 2:3:6 respectively. Find the speed by which he travels in train if the speed by which he travels by foot is 3 km/h.

मंगलवार को, व्यक्ति C 25% दूरी ट्रेन से, शेष दूरी का 50% बस से और शेष दूरी पैदल तय करता है और जिस समय के लिए उन्होंने ट्रेन, बस और पैदल यात्रा की उसका अनुपात क्रमशः 2:3:6 है।. यदि वह ट्रेन में यात्रा करता है तो उसकी गति ज्ञात कीजिए, यदि पैदल यात्रा करते समय उसकी गति 3 किमी/घंटा है।

- (A)7 km/h
- (B)5 km/h
- (C)4 km/h
- (D)6 km/h
- (E)None of these
- 3. Find the average number of distance travelled by D on all five days. सभी पाँच दिनों में D द्वारा तय की गई दूरी की औसत संख्या ज्ञात कीजिए।
 - (A)22
 - (B)25
 - (C)23
 - (D)26
 - (D)26 (E)None of these
- 4. The distance travelled by B on Thursday is how much more or less than distance travelled by A on Tuesday?

गुरुवार को B द्वारा तय की गई दूरी A द्वारा मंगलवार को तय की गई दूरी से कितनी अधिक या कम है?

- (A)22 km less
- (B)24 km more
- (C)23 km more
- (D)24 km less
- (E)None of these

- 5. If the length of a train X is equal to double the average of the distance travelled by A, B and C on Tuesday. It can cross a platform in 40 minutes and a man in 24 minutes. Then the length of the platform is what percent more or less than distance travelled by all four people on Tuesday?
 - यदि ट्रेन X की लंबाई मंगलवार को A, B और C द्वारा तय की गई दूरी के औसत के दोगुने के बराबर है। यह एक प्लेटफार्म को 40 मिनट में और एक आदमी को 24 मिनट में पार कर सकती है। तो प्लेटफार्म की लंबाई मंगलवार को सभी चार लोगों द्वारा तय की गई दूरी से कितने प्रतिशत अधिक या कम है?
 - (A)60% less
 - (B)55% less
 - (C)50% less
 - (D)65% less
 - (E)None of these

Answers

From graph we get,

Day	Distance(in km) travelled by A	Distance(in km) travelled by B	Distance(in km) travelled by C	Distance(in km) travelled by D
Monday	25%	20%	35%	20%
Tuesday	15%	35%	40%	10%
Wednesda	/ \ \			
y	45%	15%	25%	15%
Thursday	20%	30%	15%	35%
Friday	30%	25%	35%	10%

And by calculating, we get

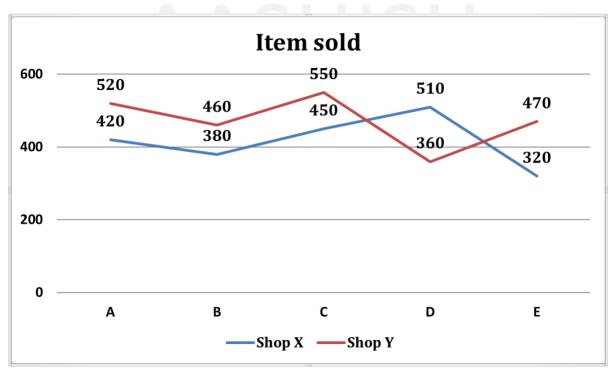
Day	Distance(in km) travelled by A	Distance(in km) travelled by B	Distance(in km) travelled by C	Distance(in km) travelled by D	Total	
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	CHECKLIST FOR BANK EXAMS 2023 BY AASHISH ARORA				
Monday	40	32	56	32	160
Tuesday	18	42	48	12	120
Wednesday	36	12	20	12	80
Thursday	28	42	21	49	140
Friday	30	25	35	10	100
	152	153	180	115	600

- 1. (A)50%
- 2. (D)6 km/h
- 3. (C)23
- 4. (B)24 km more
- 5. (A)60% less

SET 3. The line graph shows the number of five different items sold by two shops: shop X & shop Y and table shows the percentage of items bought by males. Read the data and answer the following questions.

रेखा ग्राफ़ दो दुकानों: दुकान x और दुकान y द्वारा बेची गई पांच अलग-अलग वस्तुओं की संख्या दर्शाता है और तालिका पुरुषों द्वारा खरीदी गई वस्तुओं का प्रतिशत दर्शाती है। डेटा पढ़ें और निम्नलिखित प्रश्नों के उत्तर दें।



Items % of males who bought the

CHECKLIST FOR BANK EXAMS 2023 BY AASHISH ARORA

	items		
	Shop X Shop Y		
Α	42.84%	38.45	
В	36.82%	40%	
C	55.55%	54.54	
D	41.16%	45%	
Е	60%	50%	

- 1. The number of item B in shop X sold to females is what percent of total number of item B sold by both shops? दुकान X में महिलाओं को बेची गई वस्तु B की संख्या, दोनों दुकानों द्वारा बेची गई वस्तु B की कुल संख्या का कितना प्रतिशत है?
 - (A)28.57%
 - (B)14.28%
 - (C)42.84%
 - (D)45.45%
 - (E)None of these
- 2. What is the average number of items A, B, C & D sold to males in shop X?

दुकान X में पुरुषों को बेची गई वस्तुओं A, B, C और D की औसत संख्या क्या है?

- (A)192
- (B)197
- (C)190
- (D)195
- (E)None of these

3. Find the ratio between number of item D & E sold together in shop X to females and number of item C & D sold together in shop Y to males.

दुकान X में एक साथ बेची गई वस्तु D और E की महिलाओं की संख्या और दुकान Y में एक साथ बेची गई वस्तु C और D की पुरुषों की संख्या के बीच अनुपात ज्ञात कीजिए।

(A)217:231 (B)219:237

(C)219:221

(D)214:231

(E)None of these

4. The number of items C & D sold together by both shop X & Y is what percent more or less than total number of all five items sold in both shops?

दोनों दुकान x और Y द्वारा एक साथ बेची गई वस्तुओं C और D की संख्या, दोनों दुकानों में बेची गई सभी पांच वस्तुओं की कुल संख्या से कितने प्रतिशत अधिक या कम है?

- (A)57.88% less
- (B)54.88% less
- (C)52.88% less
- (D)55.88% less
- (E)None of these

5. Find the difference between number of item D sold in shop X to females and number of item D sold in shop Y to females. दुकान X में महिलाओं को बेची गई वस्तु D की संख्या और दुकान Y में महिलाओं को बेची गई वस्तु D की संख्या के बीच अंतर ज्ञात कीजिए।

- (A)110
- (B)102
- (C)106

- (D)105
- (E)None of these

Answers

Hint: $38.45\% = 7.69\% \times 5 = 1/13 \times 5 = 5/13$, $36.82\% = 5.26\% \times 7 = 1/19 \times 7$ = 7/19, $41.16\% = 5.88\% \times 7 = 1/17 \times 7 = 7/17$

Itama	Shop X		Shop Y		Tatal
Items	Male	Female	Male	Female	Total
Α	180	240	200	320	940
В	140	240	184	276	840
C	250	200	300	250	1000
D	210	300	162	198	870
E	192	128	235	235	790
	972	1108	1081	1279	4440

- 1. (A)28.57%
- 2. (D)195
- 3. (D)214:231 4. (A)57.88% less 4. (A)57.88% less
- 5. (B)102

SET 4. Directions: Study the passage given below and answer the following questions.

The data given below is regarding the number of AC's sold by 4 different shopkeepers of two different brands Daikin and Voltas. Total number of AC's sold by P is 480 while number of Daikin AC sold by P is 80 more than number of Voltas AC sold by P. Number of Daikin AC sold by Q is 14.28% less than that AC sold by P. Total number of AC sold by Q is 40% more than total number of AC sold by S. Number of Voltas AC sold by Q is 25% more than number of Voltas AC sold by P. The ratio of total number of AC sold by Q to that by R is 5: 6 respectively. Number of Voltas AC sold by P and S are equal. Number of Voltas AC sold by R is 25% more than number of Voltas AC sold by S.

निर्देश: नीचे दिए गए गद्यांश का अध्ययन करें और निम्नलिखित प्रश्नों के उत्तर दें।

नीचे दिया गया डेटा दो अलग-अलग ब्रांडों डाइिकन और वोल्टास के 4 अलग-अलग दुकानदारों द्वारा बेचे गए एसी की संख्या के बारे में है। P द्वारा बेचे गए AC की कुल संख्या 480 है जबिक P द्वारा बेचे गए Daikin AC की संख्या P द्वारा बेचे गए वोल्टास AC की संख्या से 80 अधिक है। Q द्वारा बेचे गए Daikin AC की संख्या P द्वारा बेचे गए AC से 14.28% कम है। कुल संख्या Q द्वारा बेचे गए AC, S द्वारा बेचे गए AC की कुल संख्या से 40% अधिक है। Q द्वारा बेचे गए वोल्टास AC की संख्या, P द्वारा बेचे गए वोल्टास AC की कुल संख्या का अनुपात R क्रमशः 5:6 है। P और S द्वारा बेचे गए वोल्टास AC की संख्या बराबर है। R द्वारा बेचे गए वोल्टास AC की संख्या से 25% अधिक है। Q वारा बेचे गए वोल्टास AC की संख्या बराबर है। R द्वारा बेचे गए वोल्टास AC की संख्या से 25% अधिक है।

- 1. Find the difference between number of Daikin AC sold by P & Q together and number of Voltas AC sold by R & S together.
 P और Q द्वारा एक साथ बेचे गए Daikin AC की संख्या और R और S द्वारा एक साथ बेचे गए वोल्टास AC की संख्या के बीच अंतर ज्ञात कीजिए।
 - (A)180
 - (B)160
 - (C)190
 - (D)150
 - (E)None of these

2. The number of Daikin AC sold by S is what percent of total number of AC sold by S?

S द्वारा बेचे गए Daikin AC की संख्या, S द्वारा बेचे गए AC की कुल संख्या का कितना प्रतिशत है?

- (A)58.32%
- (B)56.38%
- (C)59.26%
- (D)54.28%
- (E)None of these

3. Find the ratio between number of Daikin AC sold by R and number of Voltas AC sold by P.

R द्वारा बेचे गए Daikin AC की संख्या और P द्वारा बेचे गए वोल्टास AC की संख्या के बीच अनुपात ज्ञात कीजिए।

- (A)81:97
- (B)46:67
- (C)59:47
- (D)97:50
- (E)None of these
- 4. Which shopkeeper sold the least number of Voltas AC? किस दुकानदार ने सबसे कम संख्या में वोल्टास एसी बेचे?
 - (A)P
 - **(B)S**
 - (C)Q
 - (D)R
 - (E)None of these

- 5. The number of Voltas AC sold by P & Q together is what percent more or less than total number of Voltas AC sold by all four shopkeepers?
 - P और Q द्वारा बेची गई वोल्टास एसी की संख्या सभी चार दुकानदारों द्वारा बेची गई वोल्टास एसी की कुल संख्या से कितने प्रतिशत अधिक या कम है?
 - (A)66.66% less
 - (B)42.84% less
 - (C)55.55% less
 - (D)44.44% less
 - (E)None of these

Answers

	Daikin	Voltas	Total
P	280	200	480
Q	240	250	490
R	388	200	588
S	190	160	350
	1098	810	1908

- 1. (B)160
- 2. (D)54.28%
- 3. (D)97:50
- 4. (B)S
- 5. (D)44.44% less

CHECKLIST

<u> MASHISH</u>

ARORA

CHECKLIST BY ABOBA