

FOR SBI IBPS PO PRE

2025

30

QUANT CHECKLIST

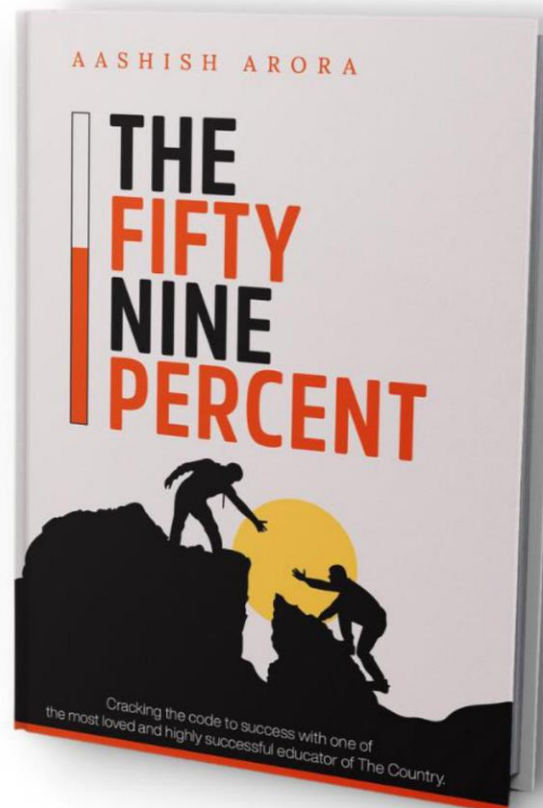
Practice Module by Aashish Arora

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

Rise and Shine.

Aashish Arora

1. SIMPLIFICATION AND APPROXIMATION

Direction: What value should come in place of the question mark (?) in the following question?

(1) $\frac{6}{7} \times 392 - \frac{2}{3} \times 162 = ? \% \text{ of } 240$

- (a) 45
- (b) 35
- (c) 65
- (d) 95
- (e) None of these

(2) $85\% \text{ of } 1200 - 4^4 + 55\% \text{ of } 1400 = ? \times 13$

- (a) 118
- (b) 126
- (c) 128
- (d) 116
- (e) None of these

(3) $\frac{8}{16} \text{ of } (228 + 528 + 218) = ? \div 4$

- (a) 1898
- (b) 1288
- (c) 1948
- (d) 1248
- (e) None of these

(4) $(2620 - 620 - 20) \div 18 = ? + 2^7 - \sqrt{196}$

- (a) -8
- (b) -4
- (c) -2
- (d) -6
- (e) None of these

(5) $(18 \times 21) + (15 \times 27) - (30 \times \sqrt{256}) = ? \times 6$

- (a) 50.5
- (b) 68.5
- (c) 70.5
- (d) 48.5
- (e) None of these

(6) $[\sqrt{\{(\sqrt{3136} \times \sqrt{7056}) / 36\frac{1}{2}\}}] - [\sqrt{\{(576) \times \sqrt{4096}\} / 36\frac{1}{2}}] = ?$

- (a) 19

- (b) 14
- (c) 18
- (d) 12
- (e) None of these

(7) $(? + 25) \times 7 + 2475 \div 55 = 30\% \text{ of } 720 + 564$

- (a) 30
- (b) 80
- (c) 60
- (d) 20
- (e) None of these

(8) $(841 + \sqrt{6084}) \times 4 - 26^2 = ?^2 - 12100 \div 22^2$

- (a) 50
- (b) 40
- (c) 45
- (d) 55
- (e) None of these

(9) $\{(36 \times 25)^{\frac{1}{2}}\} + \{(81 \times 256)^{\frac{1}{2}}\}^{\frac{1}{2}} = ?$

($\frac{1}{2}$ is power ^)

- (a) 42
- (b) 36

- (c) 85
- (d) 52
- (e) None of these

(10) $20\% \text{ of } \sqrt{2304} \text{ of } \sqrt[3]{175616} \text{ of } 12.5\% \text{ of } 80/14 = ? \times 8$

- (a) 52
- (b) 56
- (c) 48
- (d) 40
- (e) None of these

(11) $30.76\% \text{ of } \sqrt{2704} + 41.66\% \text{ of } 576\frac{1}{2} + 252 = ?$

- (a) 278
- (b) 276
- (c) 286
- (d) 228
- (e) None of these

(12) $56 \times 42 + \{46.14 \times 78 \div 12\} - 852 = ? \times 45$

- (a) 60
- (b) 65
- (c) 50
- (d) 45

(e) None of these

(13) $\sqrt{1024} \times 22^2 \div 16 = \sqrt{?} + (75\% \text{ of } 1256)$

(a) 729

(b) 676

(c) 524

(d) 625

(e) None of these

(14) $38.45 + 145.85 + 104.55 - 202.15 + 3038.08 + 202.22 = ?$

(a) 3327

(b) 4237

(c) 3427

(d) 4217

(e) None of these

(15) $60\% \text{ of } 10025 + 800\% \text{ of } 960 = ? \times 3 + 18\% \text{ of } 2600$

(a) 3629

(b) 4820

(c) 3420

(d) 4409

(e) None of these

(16) $5(7/12) + 8(3/4) - 10(5/8) + 12(3/6) - 8(1/12) + 3(5/8) = ?$

- (a) $14(3/4)$
- (b) $15(7/4)$
- (c) $11(3/4)$
- (d) $14(7/4)$
- (e) None of these

(17) $400\% \text{ of } \sqrt[3]{140608} + 450\% \text{ of } 110 = ? + 18.5 \times 16$

- (a) 305
- (b) 407
- (c) 204
- (d) 548
- (e) None of these

(18) $85\% \text{ of } 2600 - 14^2 + 24^2 = ? \times 35$

- (a) 56
- (b) 68
- (c) 86
- (d) 74
- (e) None of these

(19) $(1208 \times 84 \times 78 \times 210 / 28 \times 104 \times 420) + 41 = ? \times 80$

- (a) 17.5
- (b) 18.5
- (c) 14.5
- (d) 20.5
- (e) None of these

(20) $\{(1258 + 64 - 92) / 30\} + \{(2202 - 408 + 208) / 7\} = ?$

- (a) 367
- (b) 357
- (c) 327
- (d) 387
- (e) None of these

Answers:

- (1) D
- (2) A
- (3) C
- (4) B
- (5) A
- (6) D
- (7) B
- (8) D
- (9) A
- (10) C

(11) A

(12) E

(13) B

(14) A

(15) D

(16) C

(17) B

(18) D

(19) A

(20) C

Solutions:

(1) $\frac{6}{7} \times 392 - \frac{2}{3} \times 162 = ? \% \text{ of } 240$

$$336 - 108 = ?\% \times 240$$

$$228 \times 100 / 240 = 95$$

(2) $85\% \text{ of } 1200 - 4^4 + 55\% \text{ of } 1400 = ? \times 13$

$$1020 - 256 + 770 = 13x$$

$$1534/13 = 118$$

(3) $8/16 \text{ of } (228 + 528 + 218) = ? \div 4$

$$8 \times 974 / 16 = ? \div 4$$

$$487 \times 4 = 1948$$

$$(4) (2620 - 620 - 20) \div 18 = ? + 2^7 - \sqrt{196}$$

$$1980/18 = ? + 128 - 14$$

$$110 - 114 = -4$$

$$(5) (18 \times 21) + (15 \times 27) - (30 \times \sqrt{256}) = ? \times 6$$

$$378 + 405 - 480 = 6x$$

$$303/6 = 50.5$$

$$(6) [\sqrt{\{(\sqrt{3136} \times \sqrt{7056}) / 36\frac{1}{2}\}}] - [\sqrt{\{(576) \times \sqrt{4096}\} / 36\frac{1}{2}}] = ?$$

$$\sqrt{\{(56 \times 84)/6\}} - \sqrt{\{(24 \times 64 / 6)\}} = ?$$

$$\sqrt{784} - \sqrt{256} = ?$$

$$28 - 16 = 12$$

$$(7) (? + 25) \times 7 + 2475 \div 55 = 30\% \text{ of } 720 + 564$$

$$(? + 25) \times 7 + 45 = 216 + 564$$

$$(? + 25) \times 7 = 780 - 45$$

$$(? + 25) = 735/7$$

$$? = 105 - 25$$

$$? = 80$$

$$(8) (841 + \sqrt{6084}) \times 4 - 26^2 = ?^2 - 12100 \div 22^2$$

$$(841 + 78) \times 4 - 676 = ?^2 - 25$$

$$919 \times 4 - 676 = ?^2 - 25$$

$$3676 - 676 + 25 = ?^2$$

$$3025 = 55^2$$

$$(9) \{(36 \times 25)^{\frac{1}{2}}\} + \{(81 \times 256)^{\frac{1}{2}}\}^{\frac{1}{2}} = ?$$

$$\sqrt{900} + \sqrt{144} = ?$$

$$30 + 12 = 42$$

$$(10) 20\% \text{ of } \sqrt{2304} \text{ of } \sqrt[3]{175616} \text{ of } 12.5\% \text{ of } 80/14 = ? \times 8$$

$$20/100 \times 48 \times 56 \times 1/8 \times 80/14 = 8x$$

$$384/8 = 48$$

$$(11) 30.76\% \text{ of } \sqrt{2704} + 41.66\% \text{ of } 576^{\frac{1}{2}} + 252 = ?$$

$$4/13 \times 52 + 5/12 \times 24 + 252 = ?$$

$$16 + 10 + 252 = 278$$

$$(12) 56 \times 42 + \{46.14 \times 78 \div 12\} - 852 = ? \times 45$$

$$2352 + 600/13 \times 78/12 - 852 = 45x$$

$$2352 + 300 - 852 = 45x$$

$$1800/45 = 40$$

$$(13) \sqrt{1024} \times 22^2 \div 16 = \sqrt{?} + (75\% \text{ of } 1256)$$

$$32 \times 484 / 16 = \sqrt{?} + 942$$

$$968 - 942 = \sqrt{?}$$

$$26 = 676$$

$$(14) 38.45 + 145.85 + 104.55 - 202.15 + 3038.08 + 202.22 = ?$$

$$= 3327$$

$$(15) 60\% \text{ of } 10025 + 800\% \text{ of } 960 = ? \times 3 + 18\% \text{ of } 2600$$

$$6015 + 7680 = 3x + 468$$

$$13695 - 468 = 3x$$

$$13227/3 = 4409$$

$$(16) 5(7/12) + 8(3/4) - 10(5/8) + 12(3/6) - 8(1/12) + 3(5/8) = ?$$

$$10 + (56 + 72 - 60 + 48 - 8 + 60) / 96 = ?$$

$$10 + 7/4 = 11(3/4)$$

$$(17) 400\% \text{ of } \sqrt[3]{140608} + 450\% \text{ of } 110 = ? + 18.5 \times 16$$

$$400/100 \times 52 + 450/100 \times 110 = ? + 296$$

$$208 + 495 = ? + 296$$

$$703 - 296 = 407$$

$$(18) 85\% \text{ of } 2600 - 14^2 + 24^2 = ? \times 35$$

$$2210 - 196 + 576 = 35x$$

$$2590/35 = 74$$

$$(19) (1208 \times 84 \times 78 \times 210 / 28 \times 104 \times 420) + 41 = ? \times 80$$

$$1359 + 41 = 80x$$

$$1400/80 = 17.5$$

$$(20) \{(1258 + 64 - 92) / 30\} + \{(2202 - 408 + 208) / 7\} = ?$$

$$1230/30 + 2002/7 = ?$$

$$41 + 286 = 327$$

CHECKLIST



FOUND ERROR?

Report the error in the checklist to
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Account: [@aashisharora](#)
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2. ARITHMETIC QUESTIONS

(1) In an examination, 75% of the students passed in Hindi and 45% passed in History, while 25% students failed in both the subjects. If 315 students passed in both subjects, then find the total number of students who appeared in the exam?

एक परीक्षा में 75% छात्र हिंदी में और 45% इतिहास में उत्तीर्ण हुए, जबकि 25% छात्र दोनों विषयों में अनुत्तीर्ण हुए। यदि 315 छात्र दोनों विषयों में उत्तीर्ण हुए, तो परीक्षा में उपस्थित होने वाले कुल छात्रों की संख्या ज्ञात कीजिए?

- (a) 700
- (b) 300
- (c) 500
- (d) 200
- (e) None of these

(2) Two jars contain lemon and juice in the ratio 7:9 and 7:5 respectively. In what ratio these two mixtures should be mixed so that the ratio of lemon and juice in the resulting mixture becomes 1:1?

दो जार में नींबू और जूस का अनुपात क्रमशः 7:9 और 7:5 है। इन दोनों मिश्रणों को किस अनुपात में मिलाया जाना चाहिए ताकि परिणामी मिश्रण में नींबू और जूस का अनुपात 1:1 हो जाए?

- (a) 4:7
- (b) 3:4
- (c) 4:9
- (d) 3:7

(e) None of these

(3) A fruit seller has 150 apples, 60 Bananas and 30 Guava. It was found that 12% of apples, 15% of bananas and 20% of Guava are rotten. Find the total percentage of fruits which are rotten?

एक फल विक्रेता के पास 150 सेब, 60 केले और 30 अमरूद हैं। पाया गया कि 12% सेब, 15% केले और 20% अमरूद सड़े हुए हैं। सड़े हुए फलों का कुल प्रतिशत ज्ञात कीजिए?

(a) 13.25%

(b) 13.80%

(c) 13.75%

(d) 13.20%

(e) None of these

(4) Parveen invested a certain sum at 60% per annum CI, compounded half yearly. She invested Rs. 4000 at the start and an additional Rs. 4000 at the completion of half year. Find the interest she gets at the end of one year?

परवीन ने एक निश्चित राशि 60% प्रति वर्ष की दर से निवेश की, जो अर्धवार्षिक रूप से संयोजित होती है। उसने शुरुआत में 4000 रुपये और अर्ध वर्ष पूरा होने पर अतिरिक्त 4000 रुपये निवेश किए। एक वर्ष के अंत में उसे कितना ब्याज मिलेगा?

(a) 3980

(b) 3985

(c) 3960

(d) 3975

(e) None of these

(5) The ratio of the ages of Neha and Ram, 3 years hence will be 13:11. 5 years ago, the ratio of their ages was 9:7. Find the sum of their present ages?

3 वर्ष बाद नेहा और राम की आयु का अनुपात 13:11 होगा। 5 वर्ष पहले उनकी आयु का अनुपात 9:7 था। उनकी वर्तमान आयु का योग ज्ञात कीजिए।

- (a) 30
- (b) 44
- (c) 33
- (d) 42
- (e) None of these

(6) A bag has 18 balls from which 11 are blue and 7 are green. On 5 blue and 6 green balls, a polka dot is printed. If a ball is chosen randomly, what is the probability of choosing a green ball or a ball having a polka dot?

एक बैग में 18 गेंदें हैं जिनमें से 11 नीली और 7 हरी हैं। 5 नीली और 6 हरी गेंदों पर पोल्का डॉट छपा हुआ है। यदि एक गेंद यादृच्छिक रूप से चुनी जाती है, तो हरे या हरे रंग की गेंद चुनने की संभावना क्या है या पोल्का डॉट वाली गेंद?

- (a) $\frac{2}{3}$
- (b) $\frac{2}{7}$
- (c) $\frac{2}{8}$
- (d) $\frac{2}{9}$
- (e) None of these

(7) 285 liters of mixture contain milk and water in the ratio 9:10. How much water should be added in the mixture so that the ratio of milk and water becomes 3:5?

285 लीटर मिश्रण में दूध और पानी का अनुपात 9:10 है। मिश्रण में कितना पानी मिलाया जाना चाहिए ताकि दूध और पानी का अनुपात 3:5 हो जाए?

- (a) 70 l
- (b) 74 l
- (c) 76 l
- (d) 75 l
- (e) None of these

(8) Deepak takes 6 hours to reach the railway station from his home at a speed of 60 km/hr. By what % he should increase his speed so that he can reach the railway station in 4 hours?

दीपक को अपने घर से रेलवे स्टेशन तक पहुँचने में 60 किमी/घंटा की गति से 6 घंटे लगते हैं। उसे अपनी गति कितने प्रतिशत बढ़ानी चाहिए ताकि वह 4 घंटे में रेलवे स्टेशन पहुँच सके?

- (a) 55%
- (b) 56%
- (c) 50 %
- (d) 53%
- (e) None of these

(9) Stations X and Y are 576 km apart. At a certain time train Vande starts from X and train Bharat starts from Y towards Y and X respectively. These trains meet after 24 hours. Speed of train Bharat is 6 km/hr more than train Vande. What is the speed of train Bharat?

स्टेशन X और Y 576 किमी दूर हैं। एक निश्चित समय पर ट्रेन वंदे X से चलती है और ट्रेन भारत Y से क्रमशः Y और X की ओर चलती है। ये ट्रेनें 24 घंटे बाद मिलती हैं। ट्रेन भारत की गति ट्रेन वंदे से 6 किमी/घंटा अधिक है। ट्रेन भारत की गति क्या है?

- (a) 22 km/hr
- (b) 15 km/hr
- (c) 18 km/hr
- (d) 12 km/hr
- (e) None of these

(10) A train having a length 135 m passes a bridge of 290 m length in 17 seconds. In how much time will this train take to pass a platform of length 390 m?

135 मीटर लम्बी एक रेलगाड़ी 290 मीटर लम्बे पुल को 17 सेकंड में पार करती है। इस रेलगाड़ी को 390 मीटर लम्बे प्लेटफार्म को पार करने में कितना समय लगेगा?

- (a) 20 sec
- (b) 21 sec
- (c) 22 sec
- (d) 24 sec
- (e) None of these

(11) The average age of 17 children and their mentor is 22 years. The average age of the first 9 children is 19 years and the average age of the last 8 children is 18 years. Find the age of the mentor?

17 बच्चों और उनके गुरु की औसत आयु 22 वर्ष है। पहले 9 बच्चों की औसत आयु 19 वर्ष है और अंतिम 8 बच्चों की औसत आयु 18 वर्ष है। गुरु की आयु ज्ञात कीजिए?

- (a) 81
- (b) 85
- (c) 82
- (d) 84
- (e) None of these

(12) The CP of T.V is Rs. 3000 more than the fridge. When T.V is sold at 25% profit and the fridge is sold at 30% profit, it is found that the selling price of both is same. Find the CP of the T.V?

टीवी का क्रय मूल्य फ्रिज से 3000 रुपये अधिक है। जब टीवी को 25% लाभ पर बेचा जाता है और फ्रिज को 30% लाभ पर बेचा जाता है, तो पाया जाता है कि दोनों का विक्रय मूल्य समान है। टीवी का क्रय मूल्य ज्ञात कीजिए?

- (a) 74000
- (b) 76000
- (c) 72000
- (d) 78000
- (e) None of these

(13) 27 men working 16 hours a days can complete a work in 30 days. In how many days 18 boys can complete the same work working 20 hours a days, given that the efficiency of boy is thrice that of a man?

27 आदमी प्रतिदिन 16 घंटे काम करके एक काम को 30 दिन में पूरा कर सकते हैं। 18 लड़के प्रतिदिन 20 घंटे काम करके उसी काम को कितने दिन में पूरा कर सकते हैं, यह देखते हुए कि लड़के की कार्यक्षमता एक आदमी की कार्यक्षमता से तीन गुना है?

- (a) 12 days
- (b) 14 days
- (c) 13 days
- (d) 22 days
- (e) None of these

(14) Ritu and Neha invested Rs 240000 together. The ratio of the profit of both is 28:32. If Ritu invested for 7 months and Neha invested for 16 months, then find the amount invested by Ritu?

रितु और नेहा ने मिलकर 240000 रुपये का निवेश किया। दोनों के लाभ का अनुपात 28:32 है। यदि रितु ने 7 महीने के लिए निवेश किया और नेहा ने 16 महीने के लिए निवेश किया, तो रितु द्वारा निवेश की गई राशि ज्ञात कीजिए?

- (a) 164000
- (b) 163000
- (c) 160000
- (d) 168000
- (e) None of these

(15) The average age of A,B,C after 4 years is 32. The ratio of the ages of B and C is 8:5. The age of A is 6 years less than the age of C. Find the present average ages of A and C ?

4 वर्ष बाद A,B,C की औसत आयु 32 है। B और C की आयु का अनुपात 8:5 है। A की आयु C की आयु से 6 वर्ष कम है। A और C की वर्तमान औसत आयु ज्ञात कीजिए?

- (a) 22
- (b) 35
- (c) 38
- (d) 37
- (e) None of these

(16) If an article is sold at a discount of 75% on marked price and a profit of 80% is made. If the article is sold at the marked price, find the profit Percentage?

यदि किसी वस्तु को अंकित मूल्य पर 75% की छूट पर बेचा जाता है और 80% का लाभ होता है। यदि वस्तु को अंकित मूल्य पर बेचा जाता है, तो लाभ प्रतिशत ज्ञात कीजिए?

- (a) 110%
- (b) 220%
- (c) 120%
- (d) 140%
- (e) None of these

(17) A man has a total of 25000, he invested 15% of it at an interest rate of 30%, 25% of it at an interest rate of 20% and the remaining at an interest rate of 18%. Find the total interest? {For 1 Year in all cases}

एक आदमी के पास कुल 25000 रुपये हैं, उसने इसका 15% 30% की ब्याज दर पर, 25% 20% की ब्याज दर पर और शेष 18% की ब्याज दर पर निवेश किया। कुल ब्याज ज्ञात कीजिए?

- (a) 5080
- (b) 5085
- (c) 5075

(d) 5107

(e) None of these

(18) The radius and height of the cylinder is 14 cm and 16 cm. Find the volume of the cylinder?

बेलन की त्रिज्या और ऊँचाई 14 सेमी और 16 सेमी है। बेलन का आयतन ज्ञात कीजिए?

(a) 9855

(b) 9856

(c) 9645

(d) 9640

(e) None of these

(19) The age of Rekha after 12 years is equal to the age of Bindu after 16 years. Sum of Rekha and Bindu is equal to 8 years. Find the age of Rekha after 9 years from now?

12 वर्ष बाद रेखा की आयु 16 वर्ष बाद बिंदु की आयु के बराबर है। रेखा और बिंदु का योग 8 वर्ष के बराबर है। अब से 9 वर्ष बाद रेखा की आयु ज्ञात कीजिए?

(a) 24 years

(b) 25 years

(c) 15 years

(d) 17 years

(e) None of these

(20) Pinki can complete a work in 18 days and Rinki can complete the same work in 24 days. They started working together and worked for 4 days, then Rinki left the work and Pinki completed the remaining work alone. In how many days the whole work is completed?

पिंकी एक काम को 18 दिनों में पूरा कर सकती है और रंकी उसी काम को 24 दिनों में पूरा कर सकती है। उन्होंने एक साथ काम करना शुरू किया और 4 दिनों तक काम किया, फिर रंकी ने काम छोड़ दिया और पिंकी ने बचा हुआ काम अकेले ही पूरा किया। पूरा काम कितने दिनों में पूरा हुआ?

- (a) 15 days
- (b) 16 days
- (c) 14 days
- (d) 18 days
- (e) None of these

Answers:

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

(11)a

(12)d

(13)a

(14)c

(15)a

(16)d

(17)c

(18)b

(19)c

(20)a

Solutions:

(1) Total pass = 75+45

Fail = 25

Pass + fail = 100%

$120 - 25 = 100\%$

$145 = 100\%$

$45\% = 315$

$1\% = 7$

$100\% = 700$

(2) By allegation we get

$\frac{7}{16} \quad \frac{7}{12}$

$\frac{1}{2}$

4

3

Required ratio – 3:4

(3) Total fruits = $150 + 60 + 30 = 240$

Rotten fruits = $18 + 9 + 6 = 33$

Required percentage = $33/240 * 100 = 13.75\%$

(4) 1st half year

CI = $4000 * 30/100 = 1200$

A = $4000 + 1200 = 5200$

In 2nd half year

P = $5200 + 4000 = 9200$

CI = $9200 * 30/100 = 2760$

Total interest = $1200 + 2760 = 3960$

(5) let present age be x

$13x88/11x-8 = 9/7$

$8x = 16$

$x = 2$

Sum = $13 * 2 + 11 * 2 - 6 = 26 + 22 - 6$

$= 42$

(6) Probability = $7/18 + (11/18 - 6/18)$

$= 2/3$

(7) Milk / Water = $135/150 + x = 3/5$

$675 = 450 + 3x$

$x = 75$ litres

(8) Distance is constant

$$S_1 \cdot T_1 = S_2 \cdot T_2$$

$$60 \cdot 6 = S_2 \cdot 4$$

$$S_2 = 90$$

$$\text{Required \%} = \frac{90-60}{60} \cdot 100 = 50\%$$

(9) Speed of train vande is x

Speed of train bharat $= x+6$

$$D_1 + D_2 = 576$$

$$x + 24 + (x+6) \cdot 24 = 576$$

$$\text{Speed of train bharat} = 9+6 = 15 \text{ km/hr}$$

(10) Speed of train $= \frac{135+290}{17} = 25 \text{ m/s}$

Time taken to cross platform $= \frac{135+390}{25} = 21 \text{ seconds}$

(11) Sum of children age & coach age $= 18 \cdot 22 = 396$

$$\text{Sum of age of children} = 19 \cdot 19 + 18 \cdot 18 = 315$$

$$\text{Age of coach} = 396 - 315 = 81$$

(12) TV CP = 52. SP = 65

Chair CP = 50 SP = 65

Difference between CP $2u = 3000$

$$1u = 1500$$

$$\text{CP of TV} = 52 \cdot 1500 = 78000$$

(13) Number of days $= (27 \text{ men} \cdot 16 \text{ hours} \cdot 30 \cdot \frac{1}{18} \text{ boys} \cdot 20 \text{ hours} \cdot 3)$

= 12 days

(14) Ratio of profit = $x(7)/y(16)=28/32$

$x:y=2:1$

Amount invested by Ritu = $240000 \times \frac{2}{3} = 160000$

(15) Present Average age of A, B and C = $32-4= 28$ years

Sum of present age of A , B and C = $28 \times 3 = 84$ years

So let present age of B be $8x$, C be $5x$ and A be $5x - 6$

$8x+5x+(5x-6)=84$

$X=5$

So sum of present age of a and c = $5x+(5x-6) = 44$

Therefore present Average age of a and c = $44/2 = 22$ years

(16) 75 of MP = 180 of CP

MP : CP = $12:5$

Profit percentage = $7 \times 100/5 = 140\%$

(17) 15% of money interest rate = $3750 \times 30/100 = 1125$

25% of money interest rate = $6250 \times 20/100 = 1250$

Remaining money interest rate = $15000 \times 18/100 = 2700$

Total interest = $1125+1250+2700 = 5075$

(18) Volume of cylinder = $\pi r^2 h$

= $22/7 \times 14 \times 14 \times 16$

= 9856

(19) Let the present age of Rekha & Bindu be x & y

$$x+12=y+16$$

$$x-y=4$$

$$x+y=8$$

$$x=6$$

Rekha age after 9 year = $6+9$

= 15 years

(20) 18 4

72

24 3

They together did the remaining work for 4 days = $4 \times 7 = 28$

Remaining work = $72-28 = 44$

Pinki done the remaining work = $44/4 = 11$ days

Whole work = $4+11 = 15$ days

3. Quadratic Equations

In each of the following questions, there are two equations. You have to solve both equations and mark the correct answer.

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

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

II. $2y^2 - 26y + 84 = 0$

2.) I. $6x^2 - 20x + 16 = 0$

II. $4y^2 - 38y + 70 = 0$

3.) I. $x^2 + 17x - 138 = 0$

II. $y^2 - 22y + 112 = 0$

4.) I. $16x^2 + 20x - 24 = 0$

II. $18y^2 - 48y + 32 = 0$

5.) I. $12x + 9y = 18$

II. $5x + 4y = 7$

6.) I. $5x^2 - 13x + 26 = 3x^2 + 8$

II. $6y^2 + 7y + 2 = 3y^2 + 2y$

7.) I. $2x^2 - 13x + 21 = 0$

II. $3y^2 - 14y + 15 = 0$

8.) I. $x^2 + 8x - 128 = 0$

II. $y^2 - 17y + 72 = 0$

9.) I. $8x^2 - 48x + 72 = 0$

II. $9y^2 - 66y + 112 = 0$

10.) I. $x^2 - 21x + 90 = 0$

II. $y^2 - 33y + 270 = 0$

11.) I. $12x^2 + 29x + 14 = 0$

II. $16y^2 + 20y - 6 = 0$

12.) I. $x^2 - 41x + 420 = 0$

II. $y^2 - 39y + 380 = 0$

13.) I. $5x^2 - 26x + 32 = 0$

II. $4y^2 - 30y + 56 = 0$

14.) I. $x^2 - 30x + 189 = 0$

II. $2y^2 - 34y + 144 = 0$

15.) I. $7x^2 - 57x + 56 = 0$

II. $3y^2 - 33y + 84 = 0$

16.) I. $3x^2 - 18x + 27 = 0$

II. $y^2 - 15y + 56 = 0$

17.) I. $8x^2 - 56x + 96 = 0$

II. $6y^2 - 55y + 124 = 0$

18.) I. $x^2 + 32x + 255 = 0$

II. $y^2 + 10y - 56 = 0$

19.) I. $12x^2 - 6x - 36 = 0$

II. $14y^2 - 54y + 52 = 0$

20.) I. $x^2 - 16x + 64 = 0$

II. $3y^2 - 30y + 72 = 0$

Answers:

1. D

2. B

3. B

4. B

5. A

6. A

7. D

8. E

9. C

10. E

11. C

12. D

13. B

14. D

15. C

16. B

17. E

18. B

19. C

20. A

Answers:

$$(1) x = 12,7$$

$$y = 7,6$$

$$(2) x = 2,8/6$$

$$y = 7,10/4$$

(3) $x = -23,6$

$y = 14,8$

(4) $x = -2,12/16$

$y = 24/18, 24/18$

(5) $x = 3$

$y = 2$

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

$y = -2/3, -1$

(7) $x = 7/2, 3$

$y = 3, 5/3$

(8) $x = -16, 8$

$y = 8, 9$

(9) $x = 3, 3$

$y = 42/9, 24/9$

(10) $x = 15, 6$

$y = 15, 18$

(11) $x = -7/4, -2/3$

$y = -3/2, 1/4$

$$(12) x = 20, 21$$

$$y = 19, 20$$

$$(13) x = 16/5, 2$$

$$y = 4, 14/4$$

$$(14) x = 21, 9$$

$$y = 8, 9$$

$$(15) x = 7, 8/7$$

$$y = 7, 4$$

$$(16) x = 3, 3$$

$$y = 7, 8$$

$$(17) x = 3, 4$$

$$y = 31/5, 4$$

$$(18) x = -15, -17$$

$$y = -14, 4$$

$$(19) x = 24/12, -18/12 = 2, -1.5$$

$$y = 26/14, 28/14 = 1.85, 2$$

$$(20) x = 8, 8$$

$$y = 4, 6$$

4. WRONG NUMBER SERIES

(1) 205, 50, 254, 303, 557, 860

(a) 205

(b) 50

(c) 303

(d) 860

(e) None of these

(2) 507, 525, 540, 549, 555, 557

(a) 557

(b) 549

(c) 507

(d) 555

(e) None of these

(3) 6, 17, 40, 87, 183, 373

(a) 183

(b) 373

(c) 6

(d) 40

(e) None of these

(4) 205, 209, 217, 229, 245, 270

(a) 209

(b)229

(c)270

(d)205

(e) None of these

(5) 6, 14, 18.5, 101.75, 661.375

(a)18.5

(b)6

(c)14

(d)101.75

(e) None of these

(6) 7, 4.5, 8.5, 16, 68, 549

(a)16

(b)4.5

(c)7

(d)8.5

(e) None of these

(7) 40, 41, 49, 76, 150, 265

(a)49

(b)40

(c)150

(d)41

(e) None of these

(8) 4, 24, 130, 480, 1440, 2880

(a) 130

(b) 24

(c) 2880

(d) 480

(e) None of these

(9) 865, 2600, 1262, 2262, 1533, 2045

(a) 1533

(b) 2600

(c) 2045

(d) 865

(e) None of these

(10) 290, 291, 279, 259, 229, 190

(a) 290

(b) 279

(c) 229

(d) 190

(e) None of these

(11) 9, 12, 26, 48, 81, 124

(a) 81

(b) 12

(c) 26

(d) 124

(e) None of these

(12) 2700, 270, 54, 17.12, 6.48, 3.24

(a) 54

(b) 3.24

(c) 2700

(d) 17.2

(e) None of these

(13) 7780, 6480, 4320, 2160, 720, 120

(a) 7780

(b) 6480

(c) 720

(d) 4320

(e) None of these

(14) 44, 63.5, 82, 99.5, 117, 131.5

(a) 99.5

(b) 117

(c) 63.5

(d) 44

(e) None of these

(15) 170, 230, 320, 410, 530, 670

(a) 670

(b) 170

(c)320

(d)410

(e) None of these

(16) 42, 52, 65, 78, 94, 112

(a)112

(b)94

(c)52

(d)65

(e) None of these

(17) 1950, 1825, 1765, 1734, 1726, 1725

(a)1725

(b)1825

(c)1950

(d)1765

(e) None of these

(18) 960, 980, 1040, 1130, 1250, 1400

(a)1130

(b)960

(c)980

(d)1040

(e) None of these

(19) 360, 1800, 3600, 3700, 1800, 360

- (a) 3700
- (b) 360
- (c) 3600
- (d) 1800
- (e) None of these

(20) 1540, 1520, 1490, 1420, 1340, 1240

- (a) 1240
- (b) 1340
- (c) 1540
- (d) 1490
- (e) None of these

Answers:

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

(13)a

(14)b

(15)c

(16)d

(17)d

(18)b

(19)a

(20)d

Solutions:

(1)Sum of the previous two numbers

(2)+18, +14, +10, +6, +2

(3)*2+5, *2+6, *2+7, *2+8, *2+9

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

(5)*3.5, *4.5, *5.5, *6.5

(6)*0.5+1, *1+2, *2+3, *4+4, *8+5

(7)+1³, +2³, +3³, +4³, +5³

(8)*6, *5, *4, *3, *2

(9)+12³, -11³, +10³, -9³, +8³

(10)-2*3, -3*4, -4*5, -5*6, -6*7

(11)+3, +13, +23, +33, +43

(12)*0.1, *0.2, *0.3, *0.4, *0.5

(13)*5/6, *4/6, *3/6, *2/6, *1/6

(14)+19.5, +18.5, +17.5, +16.5, +15.5

(15)+60, +80, +100, +120, +140

(16)+5*2, +6*2, +7*2, +8*2, +9*2

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

(18) $+30, +60, +90, +120, +150$

(19) $*5/1, *4/2, *3/3, *2/4, *1/5$

(20) $-20, -40, -60, -80, -100$

CHECKLIST

BY

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5. MISSING NUMBER SERIES

(1) 292, 296, 306, 328, 374, ?

(a) 468

(b) 471

(c) 466

(d) 465

(e) None of these

(2) 255, 273, 287, 297, ?, 305

(a) 310

(b) 301

(c) 303

(d) 309

(e) None of these

(3) 26, 47, 136, 539, ?, 16135

(a) 2694

(b) 2690

(c) 2692

(d) 2700

(e) None of these

(4) 5, 35, 121, ?, 2469, 14815

(a) 493

(b)491

(c)499

(d)489

(e) None of these

(5) 13, 52, ?, 1248, 7488, 29952

(a)317

(b)321

(c)319

(d)312

(e) None of these

(6) 130, ?, 163, 196, 359, 555

(a)39

(b)33

(c)31

(d)30

(e) None of these

(7) ?, 350, 334, 359, 343, 368

(a)330

(b)329

(c)325

(d)321

(e) None of these

(8) 72, ?, 385, 506, 606, 687

(a) 241

(b) 244

(c) 249

(d) 252

(e) None of these

(9) 1470, ?, 1443, 1416, 1380, 1335

(a) 1469

(b) 1461

(c) 1463

(d) 1472

(e) None of these

(10) 2500, ?, 2493, 2458, 2430, 2395

(a) 2511

(b) 2510

(c) 2490

(d) 2500

(e) None of these

(11) 233, 238, 245, 256, ?, 298

(a) 271

(b) 279

(c) 277

(d) 273

(e) None of these

(12) 13, 43, 177, ?, 5353, 37479

(a) 899

(b) 891

(c) 896

(d) 892

(e) None of these

(13) 630, 621.5, 614, 607.5, 602, ?

(a) 591.5

(b) 599.5

(c) 597.5

(d) 602.5

(e) None of these

(14) 3744, 1872, 312, ?, 26, 13

(a) 156

(b) 159

(c) 151

(d) 163

(e) None of these

(15) 1120, 1241, 1141, ?, 1158, 1207

(a) 1222

(b) 1223

(c)1220

(d)1229

(e) None of these

(16) 760, 784, ?, 782, 764, 780

(a)765

(b)771

(c)767

(d)762

(e) None of these

(17) 6, ?, 191, 216, 222, 221

(a)129

(b)124

(c)128

(d)126

(e) None of these

(18) ?, 62, 97, 121, 136, 144

(a)19

(b)12

(c)14

(d)22

(e) None of these

(19) 12, 18, 27, ?, 60.75, 91.125

- (a) 41.5
- (b) 40.5
- (c) 49.5
- (d) 44.5
- (e) None of these

(20) 350, 405, ?, 599, 738, 905

- (a) 485
- (b) 499
- (c) 487
- (d) 488
- (e) None of these

Answers:

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

(13)c

(14)a

(15)a

(16)d

(17)a

(18)c

(19)b

(20)d

Solutions:

(1)+4 +10 +22 +46 +94
 +6 +12 +24 +48

(2)+18, +14, +10, +10, +6, +2

(3)*2-5, *3-5, *4-5, *5-5, *6-5

(4)*2+5², *3+4², *4+3², *5+2², *6+1²

(5)*4, *6, *4, *6, *4

(6)Sum of the previous two numbers

(7)+5², -4², +5², -4², +5²(8)+13², +12², +11², +10², +9²

(9)-1*9, -2*9, -3*9, -4*9, -5*9

(10)-7, -14, -21, -28, -35

(11)+5 +7 +11 +17 +25
 +2 +4 +6 +8

(12)*3+4, *4+5, *5+6, *6+7, *7+8

(13)-8.5, -7.5, -6.5, -5.5, -4.5

(14)÷2, ÷6, ÷2, ÷6, ÷2

(15)+11², -10², +9², -8², +7²

(16)+24, -22, +20, -18, +16

(17)+5³-2, +4³-2, +3³-2, +2³-2, +1³-2

(18)+6*8, +5*7, +4*6, +3*5, +2*4

(19)*1.5, *1.5, *1.5, *1.5, *1.5

(20)+55 +83 +111 +139 +167
 +28 +28 +28 +28

CHECKLIST

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6. DATA INTERPRETATION

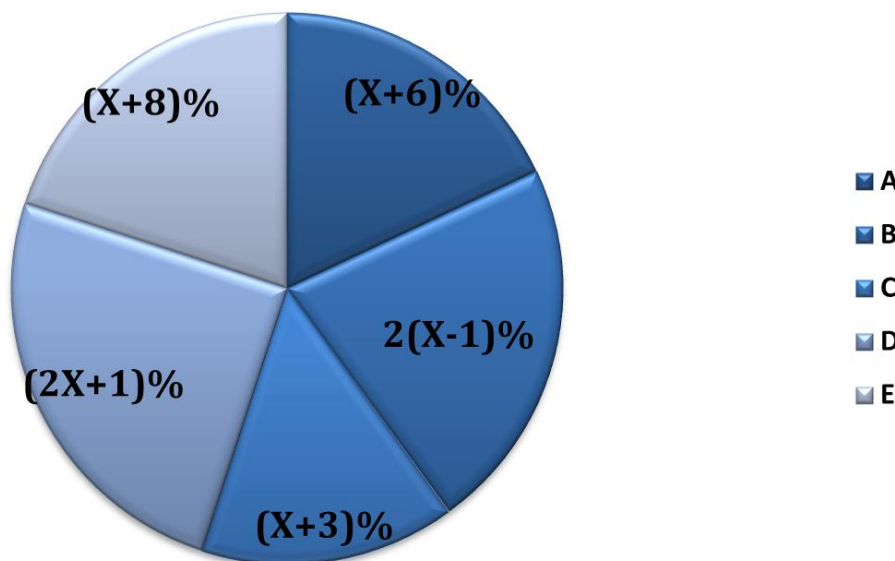
SET 1. The pie chart shows the percentage distribution of total number of (Louise Vitton+Dior) purse sold by five different shops and table chart shows the percentage by which number of Louise Vitton purse sold is more than number of Dior purse sold. Read the data and answer the following questions.

Note : The total number of (Louise Vitton+Dior) purse sold by shop D is 600 more than the total number of (Louise Vitton+Dior) purse sold by shop C.

पाई चार्ट पांच अलग-अलग दुकानों द्वारा बेचे गए कुल (लुईस विटॉन + डायर) पर्स का प्रतिशत वितरण दिखाता है और **टेबल चार्ट** यह दर्शाता है कि लुईस विटॉन पर्स की संख्या डायर पर्स की संख्या से कितने प्रतिशत अधिक है। दिए गए डेटा को पढ़ें और निम्नलिखित प्रश्नों का उत्तर दें।

नोट: दुकान D द्वारा बेचे गए कुल (लुईस विटॉन + डायर) पर्स की संख्या, दुकान C द्वारा बेचे गए कुल (लुईस विटॉन + डायर) पर्स से 600 अधिक है।

% distribution of total number of purse sold



Shop	% by which no of Louise Vitton purse sold is more than no of Dior purse sold
A	14.28%
B	40%
C	25%

D	50%
E	28.56%

1. If the number of Louise Vitton purse sold by shop D, E & F is equal to number of Louise Vitton purse sold by shop B, C & D and the number of Dior purse sold by shop F is 20% less than the number of Louise Vitton purse sold by shop F, then find the difference between the total number of (Louise Vitton+Dior) purse sold by shop D & E together and the total number of (Louise Vitton+Dior) purse sold by F.

अगर दुकान D, E और F द्वारा बेचे गए लुईस विटॉन पर्स की संख्या दुकान B, C और D द्वारा बेचे गए लुईस विटॉन पर्स की संख्या के बराबर है, और दुकान F द्वारा बेचे गए डायर पर्स की संख्या, दुकान F द्वारा बेचे गए लुईस विटॉन पर्स से 20% कम है, तो दुकान D और E द्वारा बेचे गए कुल (लुईस विटॉन + डायर) पर्स और दुकान F द्वारा बेचे गए कुल (लुईस विटॉन + डायर) पर्स के बीच का अंतर ज्ञात करें।

- (A) 1357
(B) 1213
(C) 1331
(D) 1629
(E) None of these

2. Quantity 1: The total number of (Louise Vitton+Dior) purse sold by shop E is what percent of total number of (Louise Vitton+Dior) purse sold by shop D?

Quantity 2: The number of Louise Vitton purse sold by shop C is what percent of total number of (Louise Vitton+Dior) purse sold by shop C?

मात्रा 1: दुकान E द्वारा बेचे गए कुल (लुईस विटॉन + डायर) पर्स की संख्या, दुकान D द्वारा बेचे गए कुल (लुईस विटॉन + डायर) पर्स की संख्या का कितना प्रतिशत है?

मात्रा 2: दुकान C द्वारा बेचे गए लुईस विटॉन पर्स की संख्या, दुकान C द्वारा बेचे गए कुल (लुईस विटॉन + डायर) पर्स की संख्या का कितना प्रतिशत है?

- (A) Quantity 1 > Quantity 2
(B) Quantity 1 >= Quantity 2
(C) Quantity 1 = Quantity 2
(D) Quantity 1 < Quantity 2
(E) None of these

3. If 27.27% & 20% of the number of Dior purse sold by shop B & shop C respectively are sold online and rest are sold offline, then the number of Dior purse sold offline by shop C is how much more or less than the number of Dior purse sold offline by shop B?

अगर दुकान B और C द्वारा बेचे गए डायर पर्स में से क्रमशः 27.27% और 20% पर्स ऑनलाइन बेचे गए हैं और शेष पर्स ऑफलाइन बेचे गए हैं, तो दुकान C द्वारा ऑफलाइन बेचे गए डायर पर्स की संख्या, दुकान B द्वारा ऑफलाइन बेचे गए डायर पर्स की संख्या से कितनी अधिक या कम है?

- (A) 60 more
(B) 80 less
(C) 75 more
(D) 90 less
(E) None of these

4. Total number of (Louise Vitton+Dior) purse sold by another shop Y is equal to average total number of (Louise Vitton+Dior) purse sold by shop B, C & D and the number of Dior purse sold by shop Y is '50X' more than the number of Dior purse sold by shop C, then the number of Louise Vitton purse sold by shop Y is what percent of the number of Louise Vitton purse sold by shop A?

एक अन्य दुकान Y द्वारा बेचे गए कुल (लुईस विटॉन + डायर) पर्स की संख्या, दुकान B, C और D द्वारा बेचे गए कुल (लुईस विटॉन + डायर) पर्स की औसत संख्या के बराबर है, और दुकान Y द्वारा बेचे गए डायर पर्स की संख्या, दुकान C द्वारा बेचे गए डायर पर्स से '50X' अधिक है। तो दुकान Y द्वारा बेचे गए लुईस विटॉन पर्स की संख्या, दुकान A द्वारा बेचे गए लुईस विटॉन पर्स की संख्या का कितना प्रतिशत है?

- (A) 50%
(B) 66.66%
(C) 41.66%
(D) 22.22%
(E) None of these

5. Find the ratio between the number of Dior purse sold by shop B and the number of Dior purse sold by shop E.

दुकान B द्वारा बेचे गए डायर पर्स और दुकान E द्वारा बेचे गए डायर पर्स की संख्या के बीच अनुपात ज्ञात करें।

- (A) 20:21
(B) 28:27
(C) 20:19

(D)22:21

(E)None of these

Solutions

From pie chart : $X+6\% + 2(X-1)\% + X+3\% + 2X+1\% + X+8\% = 100\%$
& $7X + 16 = 100$ & $7X = 84$ & $X = 12$. By putting the value of X, we get,

Shop	% distribution of total number of purse sold
A	18%
B	22%
C	15%
D	25%
E	20%

Also its given that, total number of (Louise Vitton+Dior) purse sold by shop D is 600 more than the total number of (Louise Vitton+Dior) purse sold by shop C so $10\% =$

600 and Total number of (Louise Vitton+Dior) purse sold by all five shops = 6000, and we get,

Shop	Total
A	1080
B	1320
C	900
D	1500
E	1200
	6000

So for shop A, number of Louise Vitton purse sold is 14.28% more than number of Dior purse sold so number of Louise Vitton purse sold = $\frac{8}{15}$ of 1080 = 576 & number of Dior purse sold = $\frac{7}{15}$ of 1080 = 504. Similarly we can calculate for all the shops.

Shop	Louise Vitton purse	Dior purse	Total
A	576	504	1080
B	770	550	1320
C	500	400	900
D	900	600	1500
E	675	525	1200
	3421	2579	6000

- (D)1629 {number of Louise Vitton purse sold by shop D, E & F is equal to number of Louise Vitton purse sold by shop B, C & D(which is 2170) so number of Louise Vitton purse sold by shop D, E & F = 2170 & number of Louise Vitton purse sold by shop F = $2170 - (900+675) = 595$ and the number of Dior purse sold by shop F is 20% less than the number of Louise Vitton purse sold by shop F so number of Dior purse sold by shop F = $\frac{4}{5}$ of 595 = 476. Required answer = $(1500+1200) - (595+476) = 2700 - 1071 = 1629$ }
- (A)Quantity 1 > Quantity 2
- (B)80 less {27.27% & 20% of the number of Dior purse sold by shop B & shop C respectively are sold online and rest are sold offline, then the number of Dior purse sold offline by shop C = $\frac{4}{5}$ of 400 = 320 and the number of Dior purse sold offline by shop B = $\frac{8}{11}$ of 550 = 400. Required answer = $400 - 320 = 80$ less}

4. (C) 41.66% {Total number of (Louise Vitton+Dior) purse sold by another shop Y is equal to average total number of (Louise Vitton+Dior) purse sold by shop B, C & D so total number of (Louise Vitton+Dior) purse sold by shop Y = 1240 and the number of Dior purse sold by shop Y is '50X' more than the number of Dior purse sold by shop C so the number of Dior purse sold by shop Y = $400 + 50(12) = 1000$ so the number of Louise Vitton purse sold by shop Y = $1240 - 1000 = 240$. Required answer = $240/576 * 100 = 41.66\%$ }
5. (D) 22:21

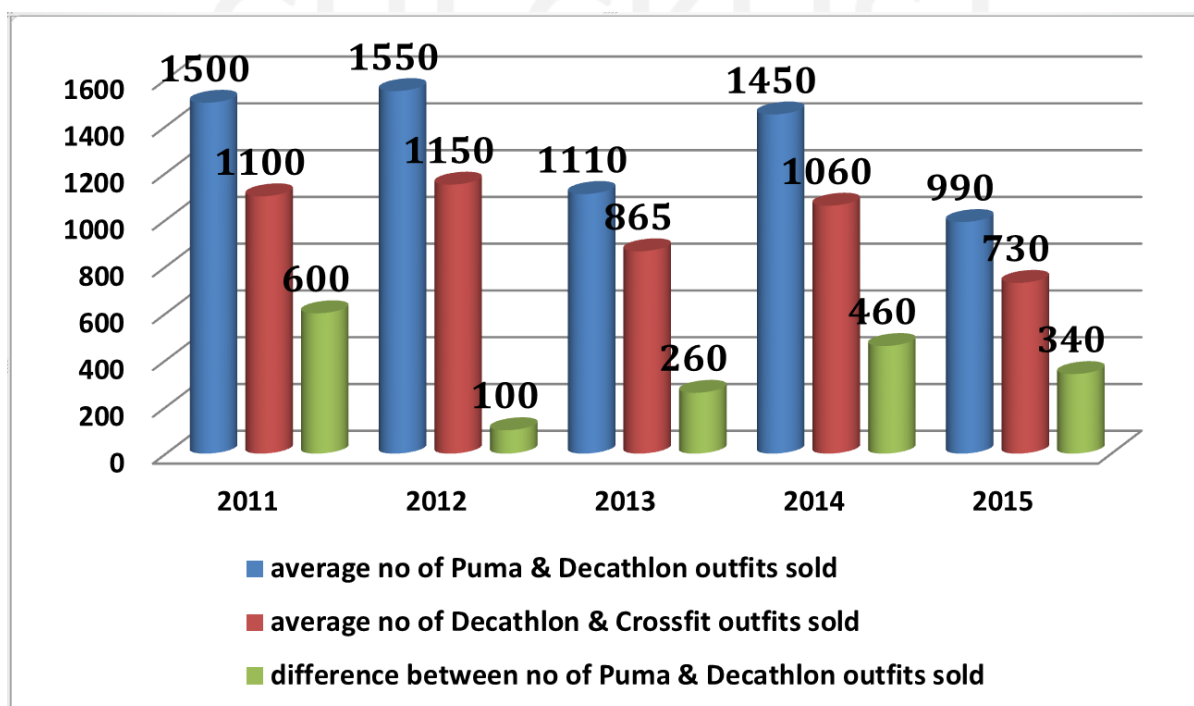
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SET 2. The bar graph shows the data about outfits sold by three different brands in five different years. Read the data and answer the following questions.

Note : The number of Puma outfits sold is more than the number of Decathlon outfits sold in each month.

बार ग्राफ़ तीन अलग-अलग ब्रांड्स द्वारा पांच अलग-अलग वर्षों में बेची गई पोशाकों के डेटा को दर्शाता है। डेटा पढ़ें और निम्नलिखित प्रश्नों के उत्तर दें।

नोट: प्यूमा द्वारा बेची गई पोशाकों की संख्या हर महीने डेकाथलॉन द्वारा बेची गई पोशाकों की संख्या से अधिक है।



- The number of Puma outfits, Decathlon outfits & Crossfit outfits sold in 2016 is 25%, 20% & 37.5% more than number of Puma outfits, Decathlon outfits & Crossfit outfits sold in 2015, then find the ratio between the number of Crossfit outfits sold in 2016 and number of Decathlon outfits sold in 2016.

2016 में बेची गई प्यूमा, डेकाथलॉन और क्रॉसफिट पोशाकों की संख्या, 2015 में बेची गई प्यूमा, डेकाथलॉन और क्रॉसफिट पोशाकों की संख्या से क्रमशः 25%, 20% और 37.5% अधिक है। तो, 2016 में बेची गई क्रॉसफिट पोशाकों और डेकाथलॉन पोशाकों की संख्या का अनुपात ज्ञात करें।

- (A) 125:142
(B) 150:141
(C) 110:123

(D)121:140

(E)None of these

2. If the ratio between the number of cult outfits sold & Decathlon outfits sold in 2012 is 6:5 and the number of cult outfits sold in 2013 is 7.14% more than the number of Decathlon outfits sold in 2013, then the number of cult outfits sold in 2012 is what percent of the number of cult outfits sold in 2013?

यदि 2012 में कल्ट और डेकाथलॉन द्वारा बेची गई पोशाकों की संख्या का अनुपात 6:5 है और 2013 में बेची गई कल्ट पोशाकों की संख्या 2013 में बेची गई डेकाथलॉन पोशाकों की संख्या से 7.14% अधिक है, तो 2012 में बेची गई कल्ट पोशाकों की संख्या 2013 में बेची गई कल्ट पोशाकों की संख्या का कितना प्रतिशत है?

(A)171.42%

(B)122.22%

(C)166.66%

(D)120%

(E)None of these

3. The average number of Decathlon outfits sold in 2012, 2013, 2014 & 2015 is how much more or less than average number of Puma outfits sold in 2011, 2012, 2013 & 2014.

2012, 2013, 2014 और 2015 में बेची गई डेकाथलॉन पोशाकों की औसत संख्या, 2011, 2012, 2013 और 2014 में बेची गई प्यूमा पोशाकों की औसत संख्या से कितनी अधिक या कम है?

(A)560 more

(B)450 less

(C)640 more

(D)390 less

(E)None of these

4. If p% & q% of the number of Puma & Decathlon outfits sold in 2013 are woollen outfits and rest are cotton outfits and the number of Decathlon outfits(cotton) sold is 700 & number of Puma outfits(cotton) sold is 930, then find the difference

between $p\%$ of the number of Puma outfits sold in 2011 and $q\%$ of the number of Decathlon outfits sold in 2013.

यदि 2013 में बेची गई प्यूमा और डेकाथलॉन पोशाकों की क्रमशः $p\%$ और $q\%$ संख्या ऊनी पोशाकें हैं और बाकी सूती पोशाकें हैं और डेकाथलॉन की सूती पोशाकों की संख्या 700 है और प्यूमा की सूती पोशाकों की संख्या 930 है, तो 2011 में बेची गई प्यूमा पोशाकों के $p\%$ और 2013 में बेची गई डेकाथलॉन पोशाकों के $q\%$ के बीच अंतर ज्ञात करें।

- (A) 160
- (B) 120
- (C) 170
- (D) 140
- (E) None of these

5. Find the difference between total number of Puma outfits sold in all five years together and number of Crossfit outfits sold in 2011, 2013 and 2015.

सभी पांच वर्षों में बेची गई प्यूमा पोशाकों की कुल संख्या और 2011, 2013 और 2015 में बेची गई क्रॉसफिट पोशाकों की संख्या के बीच अंतर ज्ञात करें।

- (A) 3670
- (B) 5090
- (C) 2610
- (D) 4820
- (E) None of these

Solutions

For 2011 : average no of Puma & Decathlon outfits sold = 1500 so total no of Puma & Decathlon outfits sold = 3000 & difference between no of Puma & Decathlon outfits sold = 600 by adding & dividing it by 2, we get, number of Puma outfits sold = $(3000+600)/2 = 1800$ so number of Decathlon outfits sold = $3000 - 1800 = 1200$. Also its given that, average no of Decathlon & Crossfit outfits sold = 1100 & sum of no of Decathlon & Crossfit outfits sold = 2200 so number of Crossfit outfits sold = $2200 - 1200 = 1000$. Similarly we get,

Year	Puma outfits	Decathlon outfits	Crossfit outfits	Total
2011	1800	1200	1000	4000
2012	1600	1500	800	3900
2013	1240	980	750	2970
2014	1680	1220	900	3800
2015	1160	820	640	2620

1. (C)110:123 {number of Puma outfits, Decathlon outfits & Crossfit outfits sold in 2016 is 25%, 20% & 37.5% more than number of Puma outfits, Decathlon outfits & Crossfit outfits sold in 2015 so the number of Crossfit outfits sold in 2016 = $11/8$ of 640 = 880 & number of Decathlon outfits sold in 2016 = $6/5$ of 820 = 984. Required answer = 880 : 984 = 110 : 123}
2. (A)171.42% {ratio between the number of cult outfits sold & Decathlon outfits sold in 2012 is 6:5 so number of cult outfits sold in 2012 = $6/5$ of 1500 = 1800 and the number of cult outfits sold in 2013 is 7.14% more than the number of Decathlon outfits sold in 2013 so the number of cult outfits sold in 2013 = $15/14$ of 980 = 1050. Required answer = $1800/1050 * 100 = 171.42\%$ }
3. (B)450 less
4. (C)170 {number of Decathlon outfits(cotton) sold is 700 so percentage of Decathlon outfits(cotton) sold = $700/980 * 100 = 71.42\%$ & $q\% = 28.56\%$ and number of Puma outfits(cotton) sold is 930 so percentage of Puma outfits(cotton) sold = $930/1240 * 100 = 75\%$ & $p\% = 25\%$, Required answer = $1/4$ of 1800 - $2/7$ of 980 = 450 - 280 = 170}
5. (B)5090

ARORA

SET 3. Directions : Study the following passage carefully and answer the questions given below.

The four schools are A, B, C, and D. Every children at these schools likes one of the comic books, such as Marvel or DC. In schools A and C, the ratio of children who like Marvel comics is 16:15, respectively. There are 20% fewer children in school A who like DC comics than there are in school C who like Marvel comics. Sum of the number of children who likes Marvel comics in school A and DC comics in school B is 125. There are 11.11% fewer children in school D who like Marvel comics than there are in school B who like DC comics. The average number of children who likes Marvel comics in A, B, C and D is 65. The number of children who likes DC comics in school C is 66.66% of the number of children who likes Marvel comics in school C. The sum of the number of children who likes DC comics in school A and school B are 105. Total number of children who likes both the comic books in school D is 65 less than total number of children who likes both the comic books in school A.

चार स्कूल हैं: A, B, C, और D। इन स्कूलों के सभी बच्चों को कॉमिक बुक्स में से किसी एक, जैसे Marvel या DC, पसंद है। स्कूल A और C में, Marvel कॉमिक्स पसंद करने वाले बच्चों का अनुपात क्रमशः 16:15 है। स्कूल A में DC कॉमिक्स पसंद करने वाले बच्चों की संख्या स्कूल C में Marvel कॉमिक्स पसंद करने वाले बच्चों की संख्या से 20% कम है। स्कूल A में Marvel कॉमिक्स पसंद करने वाले और स्कूल B में DC कॉमिक्स पसंद करने वाले बच्चों की संख्या का योग 125 है। स्कूल D में Marvel कॉमिक्स पसंद करने वाले बच्चों की संख्या स्कूल B में DC कॉमिक्स पसंद करने वाले बच्चों की संख्या से 11.11% कम है। स्कूल A, B, C, और D में Marvel कॉमिक्स पसंद करने वाले बच्चों की औसत संख्या 65 है। स्कूल C में DC कॉमिक्स पसंद करने वाले बच्चों की संख्या स्कूल C में Marvel कॉमिक्स पसंद करने वाले बच्चों की संख्या का 66.66% है। स्कूल A और B में DC कॉमिक्स पसंद करने वाले बच्चों की संख्या का योग 105 है। स्कूल D में दोनों कॉमिक बुक्स (Marvel और DC) पसंद करने वाले बच्चों की कुल संख्या स्कूल A में दोनों कॉमिक बुक्स पसंद करने वाले बच्चों की संख्या से 65 कम है।

1. Find the ratio between number of children who likes Marvel comics in school C and number of children who likes DC comics in school D.

स्कूल C में Marvel कॉमिक्स पसंद करने वाले बच्चों और स्कूल D में DC कॉमिक्स पसंद करने वाले बच्चों के बीच अनुपात ज्ञात करें।

- (A) 19 : 5
- (B) 15 : 7
- (C) 13 : 4
- (D) 15 : 2

(E)None of these

2. Find the average number of children who likes DC comics in all four school .
सभी चार स्कूलों में DC कॉमिक्स पसंद करने वाले बच्चों की औसत संख्या ज्ञात करें।

(A)47.5

(B)40.5

(C)36.5

(D)32.5

(E)None of these

3. Find the difference between number of children who likes Marvel comics in school B and number of children who likes DC comics in school A.

स्कूल B में Marvel कॉमिक्स पसंद करने वाले बच्चों और स्कूल A में DC कॉमिक्स पसंद करने वाले बच्चों के बीच अंतर ज्ञात करें।

(A)12

(B)6

(C)5

(D)10

(E)None of these

4. The number of children who likes Marvel comics in school C is what percent(approx.) of total number of children in school C?

स्कूल C में Marvel कॉमिक्स पसंद करने वाले बच्चों की संख्या स्कूल C में कुल बच्चों की संख्या का कितना प्रतिशत है?

(A)60%

(B)32%

(C)49%

(D)53%

(E)None of these

5. The total number of children in school B is how much more or less than total number of children in school C?

स्कूल B में कुल बच्चों की संख्या स्कूल C में कुल बच्चों की संख्या से कितनी अधिक या कम है?

- (A) 18 more
(B) 15 less
(C) 25 more
(D) 24 less
(E) None of these

	MARVEL	D . C.	TOTAL
A	80	60	140
B	65	45	110
C	75	50	125
D	40	35	75
TOTAL	260	190	450

Solutions

1. (B) 15 : 7
2. (A) 47.5
3. (C) 5
4. (A) 60%
5. (B) 15 less

CHECKLIST

BY

AASHISH

ARORA