

Top 50 Arithmetic Problems for SBI Clerk Prelims 2019

1) The ratio of the income of A and B is 3:2 and the ratio of the expenditure to savings of B is 7:5. If the total income of A and B is Rs.36000, then what is the expenditure of B?

- a) Rs.2800
- b) Rs.5600
- c) Rs.6300
- d) Rs.7000
- e) None of these

2) In an election, a total number of votes is 20000 and Ravi got 52% of the valid votes. If 5% of the total votes is invalid, then what is the number of valid votes polled to other candidates?

- a) 8940
- b) 9120
- c) 9460
- d) 8630
- e) None of these

3) Rahul spends 45% of his monthly salary to education and 30% of the remaining to his shopping. 50% of the remaining to his insurance scheme and now he left with his Rs.3850. What is Rahul monthly salary?

- a) Rs.12000
- b) Rs.15000
- c) Rs.18000
- d) Rs.20000
- e) None of these

4) The shopkeeper had bought 20 watches at the price of Rs.2000 per watch. He sold 8 watches at the profit of 20%. What is the price of a watch if he sells the remaining watches to make the overall profit at 20%?

- a) Rs.2200
- b) Rs.2500
- c) Rs.2400
- d) Rs.2600
- e) Rs.2800

5) A shopkeeper gives two successive discounts of 20% and 25% on the marked price of an article. If

the total discount is Rs.1200, then what is the selling price of the article?

- a) Rs.1200
- b) Rs.1500
- c) Rs.1800
- d) Rs.2000
- e) None of these

6) The cost price of a bangle is Rs. 2400. If a shopkeeper marked the price of bangle as 120% above the cost price and gave 5% discount, then find the difference between the amount of profit and discount?

- a) Rs. 144
- b) Rs. 156
- c) Rs. 126
- d) Rs. 192
- e) Rs. 182

7) The shopkeeper sold two mobiles for Rs.6000 each. If one of the mobile sold at 20% profit and another one is 20% loss, then what is the profit or loss for whole transaction?

- a) No loss no profit
- b) Rs.400 profit
- c) Rs.600 loss
- d) Rs.500 loss
- e) Rs.600 profit

8) The loss incurred after the selling the house for Rs.4 lakh is same as the profit earned after selling the same house for Rs.5.2lakh. What is the cost price of the house?

- a) Rs.4.2 lakh
- b) Rs.4.4 lakh
- c) Rs.4.6 lakh
- d) Rs.4.8 lakh
- e) None of these

9) A shopkeeper bought two articles A and B such that he had a Profit of 15% and 20% on selling article A and B respectively at Rs.230 and Rs.420 respectively. At what price must that items be sold together in order to gain 30%?

Top 50 Arithmetic Problems for SBI Clerk Prelims 2019

- a) Rs.686
- b) Rs.695
- c) Rs.700
- d) Rs.740
- e) None of these

10) The selling price of 8 articles is equal to the cost price of 10 articles. What is the percentage profit in selling the articles?

- a) 15%
- b) 12%
- c) 20%
- d) 25%
- e) 28%

11) A and B started business with the investment in the ratio of 4: 5. 20% of the profit is given to the charity and the remaining profit is distributed to them according to their investment. At the end of one year the total profit is Rs.18000. Find the profit share of B.

- a) Rs.7000
- b) Rs.8000
- c) Rs.9000
- d) Rs.6000
- e) Rs.11000

12) A, B and C started the business with the investment of Rs. x, Rs. 2x and Rs.4000 respectively. After one year the total profit is Rs.3400 and the profit share of B is Rs.1200. Find the value of x?

- a) Rs.1000
- b) Rs.800
- c) Rs.1200
- d) Rs.1500
- e) None of these

13) A and B started a business with investment of Rs.18000 and Rs 25000 and their annual profit were in the ratio 3: 5. If B invested for 9 months, for how many months did A invest his money?

- a) 6 months
- b) 7 months

- c) 7.5 months
- d) 8.5 months
- e) 9 months

14) A received Rs.600 as profit from the total profit of Rs.1250 which he and B earned at the end of one year of the business. If A started the business with an initial investment of Rs.7200 and B joined him after 2 months, then what is the investment of B?

- a) Rs.9360
- b) Rs.7820
- c) Rs.8400
- d) Rs.8260
- e) Rs.9550

15) The bag contains 3 red balls and 2 yellow balls. If a boy selected 4 balls randomly, in how many ways at least 2 red balls are selected?

- a) 5
- b) 3
- c) 4
- d) 2
- e) 1

16) A bag contains 6 red balls and 5 yellow balls. Find the probability of selecting 2 balls which are in different color.

- a) 6/11
- b) 1/132
- c) 1/66
- d) 5/11
- e) 1/33

17) In how many different ways the word "BANANA" can be arranged, so that the vowels always come together?

- a) 720
- b) 6
- c) 12
- d) 24
- e) 120

18) A bag contains 4 red balls, 3 blue balls and 6 green balls. If two balls are drawn at random, then

Top 50 Arithmetic Problems for SBI Clerk Prelims 2019

what is the probability that either both are red or both are blue?

- a) $\frac{1}{26}$
- b) $\frac{1}{13}$
- c) $\frac{3}{26}$
- d) $\frac{2}{13}$
- e) None of these

19) How many four letter words can be formed out of the letters of the word is "LOGARITHMS"?

- a) 2520
- b) 720
- c) 5040
- d) 360
- e) None of these

20) A car covers certain distance in 8 hours and then the car reduced the speed by 12 kmph, it will cover the same distance in 10 hours. What is the distance travelled by car?

- a) 360 km
- b) 320 km
- c) 420 km
- d) 480 km
- e) 280 km

21) Ram covers a certain distance by car. Had he travelled 11 kmph faster then he takes 11 h less time. But if he travelled 12 kmph slower, then he takes 35 h more. Find the distance?

- a) 840 km
- b) 760 km
- c) 600 km
- d) 580 km
- e) 920 km

22) Train crosses the 360 m length of the bridge in 36 seconds and the same train crosses the electric pole in 14.4 seconds. What is the length of the train?

- a) 220 m
- b) 240 m
- c) 280 m
- d) Cannot be determined

e) None of these

23) A train crosses the 200 m long platform in 18 seconds and crosses the pole in 6 seconds. Find the speed of the train (in kmph)

- a) 40
- b) 60
- c) 30
- d) 24
- e) 48

24) 400 m long train A crosses the train B running in opposite direction in 36 seconds and the speed of train A is 60 kmph. If train B crosses the electric pole in one minute, then what is the length of train B?

- a) 400 m
- b) 500 m
- c) 600 m
- d) 300 m
- e) None of these

25) Train A, 600 m long is running at 80 kmph will take how much time to cross a man sitting in another train which is 400 m long, running at 64 kmph in the opposite direction?

- a) 25 sec
- b) 10 sec
- c) 15 sec
- d) 20 sec
- e) 30 sec

26) A milkman has mixture of milk and water in the ratio of 3:2. If he taken out x liters of the mixture and replaced with 10 liters of water, then the ratio of the milk to water becomes 3:4. Find the initial volume of the milk.

- a) 40 liters
- b) 20 liters
- c) 30 liters
- d) 45 liters
- e) Cannot be determined

Top 50 Arithmetic Problems for SBI Clerk Prelims 2019

27) If the ratio of the milk and water in the vessel A is 4: 3 and the mixture of the milk and water in the ratio of vessel B is 2: 3. If both the vessels are mixed, then what is the ratio of the milk to water in the final mixture?

- a) 2: 3
- b) 4: 5
- c) 11: 12
- d) 17: 18
- e) None of these

28) A mixture contains 'a' liter of water and 20 liters of milk. Some amount of mixture is replaced by same quantity of water and the ratio milk and water becomes 8:7 respectively. What percent of mixture is replaced if quantity of water in the mixture becomes 14 liters?

- a) 10%
- b) 20%
- c) 25%
- d) 30%
- e) 40%

29) The average weight of the class(both boys and girls) is 30 kg. If the total number of girls is 12 and the average weight of girls is 28 kg. If the average weight of the boys in the class is 34, then find the number of boys in the class?

- a) 4
- b) 6
- c) 12
- d) 8
- e) None of these

30) Sam invests Rs.4800 at 15% simple interest per annum for x years. After x years the amount becomes Rs.10560, then find the value of x.

- a) 8%
- b) 6%
- c) 10%
- d) 12%
- e) None of these

31) Find the rate of interest, if a person invested Rs.2100 at simple interest for 6 years and after 6 years the amount becomes Rs.3108.

- a) 6%
- b) 12%
- c) 20%
- d) 15%
- e) 8%

32) Find the difference between the simple interest and compound interest earned on Rs.26300 at the rate of 10% p.a for 2 years.

- a) Rs.200
- b) Rs.225
- c) Rs.163
- d) Rs.360
- e) None of these

33) The compound interest accrued on the amount Rs.14000 at the end of two years is Rs.2940. What is the simple interest accrued on Rs.5600 at the same rate in 4 years?

- a) Rs.2220
- b) Rs.2240
- c) Rs.2260
- d) Rs.2280
- e) Rs.2290

34) Shon invested Rs.x in scheme A which offers simple interest at 15% per annum for 4 years. He also invests Rs.(x + 1000) in scheme B which offer compound interest at 10% per annum for 2 years and after 2 years he received the compound interest is Rs.714. How much amount of interest received by Shon in scheme A?

- a) Rs.1280
- b) Rs.1370
- c) Rs.1440
- d) Rs.1320
- e) None of these

35) The ratio of the ages of A and B is 3:4 and after 10 years the ratio becomes 14:17. What is the difference between the ages of A and B?

Top 50 Arithmetic Problems for SBI Clerk Prelims 2019

- a) 8 yrs
- b) 12 yrs
- c) 24 yrs
- d) 6 yrs
- e) None of these

36) The average weight of a class of 10 students is increased by 4 Kg when one student of 30 kg left and another student joined. Find the weight of a student who joined.

- a) 75 kg
- b) 40 kg
- c) 30 kg
- d) 45 kg
- e) 70 kg

37) If the ratio of ages of Varun and Tharun, 5 years ago is 5: 8 and difference of their age is 15 years, then find the sum of the present age of Varun and Tharun?

- a) 50 yrs
- b) 75 yrs
- c) 60 yrs
- d) 48 yrs
- e) 80 yrs

38) The average weight of 20 students of the class is 60 kg and the average increases by 5 kg when two new students joined the class. What is the average weight of new students?

- a) 110 kg
- b) 115 kg
- c) 120 kg
- d) 125 kg
- e) None of these

39) Difference between the perimeter of rectangle and square is 48 cm and the area of the rectangle is 384 cm^2 . If the ratio of the length to breadth of the rectangle is 3: 2, then what is the area of the square?

- a) 225 cm^2
- b) 441 cm^2
- c) 484 cm^2

- d) Cannot be determined
- e) None of these

40) Length and breadth of a rectangular field is 36 m and 22 m respectively. Find the cost of grassing the field at the rate of Rs.3 per m^2 .

- a) Rs.1255
- b) Rs.2200
- c) Rs.2376
- d) Rs.2562
- e) Rs.2566

41) The area of the square is 512 cm^2 . If the length of the rectangle is 3 cm more than the diagonal of the square and the radius of the sphere is 5 cm more than the breadth of the rectangle, whose area is 560 cm^2 , then find the volume of the sphere?

- a) 27552 cm^3
- b) 38808 cm^3
- c) 41464 cm^3
- d) 32276 cm^3
- e) 46520 cm^3

42) The volume of the cone is 1232 cm^3 and the circumference of the circle is 44 cm. If the radius of the circle is equal to the radius of the cone, then what is the slanting height of the cone?

- a) 9 cm
- b) 16 cm
- c) 25 cm
- d) 30 cm
- e) 36 cm

43) If the surface area of the sphere is 616 cm^2 and the radius of the sphere is equal to the radius of the cylinder. If the height of the cylinder is 12 cm, then what is the curved surface area of the cylinder?

- a) 528 cm^3
- b) 548 cm^3
- c) 538 cm^3
- d) 518 cm^3
- e) None of these

Top 50 Arithmetic Problems for SBI Clerk Prelims 2019

44) A and B together can complete the work in 30 days, B and C together can complete the work in 20 days and C and A together can complete the work in 40 days. In how many days A alone complete the work?

- a) 120 days
- b) 240 days
- c) 80 days
- d) 60 days
- e) None of these

45) C is 40% more efficient than B who is 25% more efficient than A. If A, B and C together can complete the work in 35 days. Then in how many days B alone can complete 75% of work.

- a) 72 days
- b) 96 days
- c) 80 days
- d) 84 days
- e) None of these

46) A and B can complete the work in 5 days. If B alone completes the work in 11 days, then find the number of days A alone takes to complete the work?

- a) $8\frac{7}{6}$ days
- b) $9\frac{1}{6}$ days
- c) $6\frac{2}{9}$ days
- d) $6\frac{5}{9}$ days
- e) 9 days

47) Pipe A and B can fill the tank in 30 h. If pipe A can fill the tank in 12 h, then find the time taken by B to empty/fill the tank?

- a) 20 h to empty the tank
- b) 12 h to fill the tank

- c) 15 h to empty the tank
- d) 20 h to fill the tank
- e) 12 h to empty the tank

48) 18 men can do a piece of work in 20 days in work for 8 hours per day. If the efficiency of the man is double in woman, then in how many hours per day 40 women can do the same work in 20 days?

- a) 5.8 hours
- b) 6.8 hours
- c) 7.2 hours
- d) 8.4 hours
- e) None of these

49) A boat can row 80 km upstream and comeback to original position in 12 hours and ratio of speed of boat in still water to speed of stream is 3: 2. What is the speed of stream?

- a) 12 kmph
- b) 16 kmph
- c) 20 kmph
- d) 24 kmph
- e) None of these

50) A person can travel 64 Km downstream in 4 hours with stream speed of 2 km/hr. Find the time taken by him to travel 84 km upstream with stream speed of 4 km/hr?

- a) 6.5 hrs
- b) 5 hrs
- c) 6.4 hrs
- d) 7 hrs
- e) 8.4 hrs

Top 50 Arithmetic Problems for SBI Clerk Prelims 2019

Answers and Explanation

1) Answer: e)

Income of B = $\frac{2}{5} \times 36000 = \text{Rs. } 14400$

Expenditure of B = $(\frac{7}{12}) \times 14400 = \text{Rs. } 8400$

2) Answer: b)

Valid votes = $20000 \times \frac{95}{100} = 19000$

Number of valid votes polled to other candidates =

$[(100 - 52)/100] \times 19000$

= 9120

3) Answer: d)

Let Rahul salary = x

Education = $x \times \frac{45}{100}$

Remaining = $x \times \frac{55}{100} = \frac{11x}{20}$

Shopping = $\frac{11x}{20} \times \frac{30}{100}$

= $\frac{33x}{200}$

Now remaining salary = $\frac{11x}{20} - \frac{33x}{200}$

= $\frac{77x}{200}$

Insurance scheme = $\frac{77x}{200} \times \frac{50}{100}$

According to the question,

Remaining amount = $\frac{77x}{200} \times \frac{50}{100} = 3850$

Rahul's monthly salary (x) = Rs. 20000

4) Answer: c)

8 watches sold at 20% profit = $8 \times 2000 \times (\frac{120}{100}) = \text{Rs. } 19200$

$19200 + 12 \times x = 2000 \times 20 \times \frac{120}{100}$

$12x = 28800$

$x = \text{Rs. } 2400$

5) Answer: c)

MP of an article = x

SP of the article = $x \times \frac{75}{100} \times \frac{80}{100} = \frac{3x}{5}$

$(x - \frac{3x}{5}) = 1200$

$2x = 5 \times 1200$

$\Rightarrow x = 3000$

SP of the article = $3 \times \frac{3000}{5} = \text{Rs. } 1800$

6) Answer: d)

CP = Rs. 2400

MP = $(\frac{2400}{100}) \times 120 = \text{Rs. } 2880$

SP = $\frac{2880}{100} \times 95 = \text{Rs. } 2736$

Discount = MP - SP = $2880 - 2736 = \text{Rs. } 144$

Profit = SP - CP = $2736 - 2400 = \text{Rs. } 336$

Required difference = $336 - 144 = \text{Rs. } 192$

7) Answer: d)

Total SP = $6000 + 6000 = \text{Rs. } 12000$

CP of the first mobile = $\frac{100}{120} \times 6000 = \text{Rs. } 5000$

CP of second mobile = $\frac{100}{80} \times 6000 = \text{Rs. } 7500$

Total CP = $5000 + 7500 = \text{Rs. } 12500$

Loss = $12500 - 12000 = \text{Rs. } 500$

8) Answer: c)

Profit = SP - CP

Loss = CP - SP

CP - 400000 = 520000 - CP

$2CP = 920000$

CP = 460000

9) Answer: e)

SP of A = 230

Profit% on A = 15%

CP of A = $230 \times \frac{100}{115} = 200$

SP of B = 420

Profit% on B = 20%

CP of B = $420 \times \frac{100}{120} = 350$

Total CP = $200 + 350 = 550$

Now, to earn a total profit of 30% on both item together, selling price = 130% of 550 = Rs. 715

10) Answer: b)

S.P of 8 articles = C.P of 10 articles

S.P of 1 article = C.P of $(\frac{5}{4})$ article

Let C.P of 1 article be Rs 4

S.P of 1 article = $(\frac{5}{4}) \times 4 = \text{Rs. } 5$

So, percentage profit = $((5 - 4)/4) \times 100\% = 25\%$

11) Answer: b)

Profit ratio of A and B = 4:5

B's profit share = $\frac{5}{9} \times \frac{80}{100} \times 18000$

= Rs. 8000

12) Answer: d)

Top 50 Arithmetic Problems for SBI Clerk Prelims 2019

Profit ratio of A, B and C = $(x * 12) : (2x * 12) : (4000 * 12)$

Total Profit of A, B and C = $3400 = (x + 2x + 4000) * 12$

According to the question,

$(2x * 12) / [(3x + 4000) * 12] = 1200 / 3400$

$2x / (3x + 4000) = 6 / 17$

$17x = 9x + 12000$

$8x = 12000$

$\Rightarrow x = 1500$

13) Answer: c)

$A/B = 18000 * X / (25000 * 9) = 3/5$

$2X/25 = 3/5$

$X = 7.5$ months

14) Answer: a)

Total profit = 1250

Share of A in profit = 600

Share of B in profit = $1250 - 600 = 650$

Profit ratio, A: B = 600: 650 = 12: 13

Investment of A = 7200

Let investment of B = a

Period of investment of A = 12 months

Period of investment of B = $12 - 2 = 10$ months

Profit ratio, A: B = $7200 * 12 : a * 10 = 8640 : a$

Then, $12:13 = 8640 : a$

$a = \text{Rs.}9360$

15) Answer: a)

Total number of ways of selection = ${}^3C_2 * {}^2C_2 + {}^3C_3 * {}^2C_1$

$= 3 * 1 + 1 * 2$

$= 5$

16) Answer: d)

Required probability = $({}^6C_1 * {}^5C_1) / {}^{11}C_2$

$= (6 * 5) / [(11 * 10) / 2] = 5/11$

17) Answer: c)

Required number of ways

$= (4! / 2!) * (3! / 3!)$

$= (1 * 2 * 3 * 4) / (1 * 2) = 12$

A bag contains 3 red balls and 4 grey balls. If one ball is taken out randomly, then find the probability of selecting the ball of grey color.

Required probability = ${}^4C_1 / {}^7C_1 = 4/7$

18) Answer: c)

Required probability = $(4C_2 + 3C_2) / {}^{13}C_2$
 $= 3/26$

19) Answer: c)

Number of letters = 10

$10! / (10 - 4)! = 720 * 7$

$= 5040$

20) Answer: d)

Distance = speed * time

Distance = d

Speed = s

$d/s = 8$

$d = 8s$

$d/(s - 12) = 10$

$8s = 10s - 120$

$120 = 2s$

$s = 60$ kmph

$d = 60 * 8 = 480$ km

21) Answer: a)

Distance = speed (s) * time (t)

$st = (s + 11)(t - 11)$

$-11s + 11t - 121 = 0$ ----- (1)

$st = (s - 12)(t + 35)$

$35s - 12t - 420 = 0$ ----- (2)

Solving (1) and (2)

$s = 24$ kmph

$t = 35$ h

Distance = $st = 24 * 35 = 840$ km

22) Answer: b)

Let Length of train = x

Speed of the train = y

$(x + 360) = y * 5/18 * 36$

$x + 360 = 10y$ (1)

$x = y * 5/18 * 14.4$

$x = 4y$

Top 50 Arithmetic Problems for SBI Clerk Prelims 2019

$$y = x/4$$

Now from (1),

$$x + 360 = 10 * x/4$$

$$4x + 1440 = 10x$$

$$6x = 1440$$

$$x = 240 \text{ m}$$

23) Answer: b)

Let Length of the train = x

Speed of the train = y

$$x + 200 = y * 5/18 * 18$$

$$x + 200 = 5y$$

$$\text{Also, } x = y * 5/18 * 6$$

$$3x = 5y$$

$$\text{Thus, } 5y/3 + 200 = 5y$$

$$5y + 600 = 15y$$

$$10y = 600$$

$$y = 60 \text{ kmph}$$

24) Answer: b)

Length of train B = x

Speed of train B = y

$$400 + x = (60 + y) * 5/18 * 36$$

$$400 + x = 600 + 10y$$

$$x - 10y = 200 \text{ ----- (1)}$$

$$x = y * 5/18 * 60$$

$$3x = 50y$$

$$3x/50 = y \text{ ----- (2)}$$

Substitute Equation (2) in (1)

$$x - 10 * 3x/50 = 200$$

$$(5x - 3x)/5 = 200$$

$$2x = 200 * 5$$

$$x = 500 \text{ m}$$

25) Answer: a)

Distance = 600m

Total speed = 80 + 64 = 144 kmph

= 144 * 5/18 = 40 m/s (added because travelling in opposite direction)

Distance = speed * time

$$(600 + 400)/40 = \text{time}$$

$$\text{Time} = 25 \text{ sec}$$

26) Answer: e)

Let Initial quantity of the mixture = y liters

$$\text{Milk} = y * 3/5 = 3y/5$$

$$\text{Water} = y * 2/5 = 2y/5$$

$$\text{Milk in } x \text{ liters of mixture} = 3x/5$$

$$\text{Water in } x \text{ liters of mixture} = 2x/5$$

$$(3y/5 - 3x/5) / [(2y/5 - 2x/5) + 10] = 3/4$$

$$(3y - 3x) * 4 = (2y - 2x + 50) * 3$$

$$12y - 12x = 6y - 6x + 150$$

$$6y - 6x = 150$$

$$y - x = 25$$

27) Answer: d)

$$\text{Milk in vessel A} = 4/7$$

$$\text{Water in vessel A} = 3/7$$

$$\text{Milk in vessel B} = 2/5$$

$$\text{Water in vessel B} = 3/5$$

$$\text{Milk in final mixture} = 4/7 + 2/5$$

$$= (20 + 14)/35$$

$$= 34/35$$

$$\text{Water in final mixture} = 3/7 + 3/5$$

$$= (15 + 21)/35$$

$$= 36/35$$

$$\text{Required ratio} = 34/35 : 36/35$$

$$= 17 : 18$$

28) Answer: b)

Let m% mixture is replaced by water. Then, according to the question:

Quantity of water in mixture = a + m% of (a + 20) - m% of a = a + m% of 20

Quantity of milk in mixture = 20 - m% of 20

$$a + m\% \text{ of } 20 = 14$$

$$\text{And, } 7/8 = (a + m\% \text{ of } 20) / (20 - m\% \text{ of } 20)$$

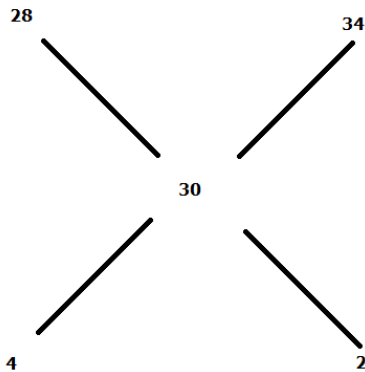
$$7/8 = 14 / (20 - m\% \text{ of } 20)$$

$$m = 20$$

Hence, 20% of mixture is replaced by water

29) Answer: b)

Top 50 Arithmetic Problems for SBI Clerk Prelims 2019



=2:1

Number of boys = $\frac{1}{2} \times 12 = 6$

30) Answer: a)

$$SI = P \times N \times R/100$$

$$10560 - 4800 = 4800 \times 15 \times x/100$$

$$5760 = 4800 \times 15 \times x/100$$

$$\Rightarrow x = 8\%$$

31) Answer: e)

$$3108 - 2100 = 2100 \times 6 \times x/100$$

$$? = 8\%$$

32) Answer: e)

$$\text{Difference } D = P (R/100)^2$$

$$D = 26300(10/100)^2$$

$$D = 26300/100$$

$$D = \text{Rs.} 263$$

33) Answer: b)

$$CI = P \times (1 + R/100)^n - P$$

$$2940 = 14000 \times (1 + R/100)^2 - 14000$$

$$16940/14000 = (1 + R/100)^2$$

$$1.21 = (1 + R/100)^2$$

$$12100 = (100 + R)^2$$

$$110 = 100 + R$$

$$R = 10\%$$

$$SI = P \times N \times R/100$$

$$SI = 5600 \times 10 \times 4/100$$

$$= 2240$$

34) Answer: c)

$$CI = P \times (1 + R/100)^n - P$$

$$714 = (x + 1000) \times (1 + 10/100)^2 - (x + 1000)$$

$$714 = (x + 1000) \times (21/100)$$

$$3400 = x + 1000$$

$$x = 2400$$

$$SI = P \times N \times R/100$$

$$= 2400 \times 15 \times 4/100$$

$$= \text{Rs.} 1440$$

35) Answer: d)

$$(3x + 10)/(4x + 10) = 14/17$$

$$51x + 170 = 56x + 140$$

$$5x = 30$$

$$x = 6 \text{ years}$$

Difference between the ages of A and B is = 6 years

36) Answer: e)

Total weight of 10 students = T

Initial average weight = y

$$T/10 = y$$

$$T = 10y \dots (1)$$

Let the weight of new student joined is x kg

According to the question,

$$(T - 30 + x)/10 = (y + 4)$$

$$T - 30 + x = 10y + 40$$

$$T - 70 + x = 10y \dots (2)$$

From (1) and (2)

$$T = T - 70 + x$$

$$x = 70$$

Short cut: 30kg left and average of 10 increased by 4kg. So $30 + 4 \times 10 = 70$

37) Answer: b)

The ratio of ages of Varun and Tharun, 5 years ago =

$$5 : 8 (5x, 8x)$$

$$8x - 5x = 15$$

$$3x = 15$$

$$x = 5$$

$$\text{Required sum} = 13x + 10 = (13 \times 5) + 10 = 75 \text{ years}$$

38) Answer: b)

$$\text{Total weight of students} = 20 \times 60 = 1200 \text{ kg}$$

$$\text{New weight of the students} = (60 + 5) \times (20 + 2) = 1430 \text{ kg}$$

$$\text{Weight of two new students} = 1430 - 1200 = 230 \text{ kg}$$

$$\text{Average weight of new students} = 230/2 = 115 \text{ kg}$$

Top 50 Arithmetic Problems for SBI Clerk Prelims 2019

39) Answer: d)

Area of the rectangle = $l * b = 384$

$$3x * 2x = 384$$

$$\Rightarrow x = 8 \text{ cm}$$

$$\text{Length of the rectangle} = 3 * 8 = 24 \text{ cm}$$

$$\text{Breadth of the rectangle} = 2 * 8 = 16 \text{ cm}$$

$$\text{Perimeter of the rectangle} = 2 * (l + b)$$

$$= 2 * (24 + 16)$$

$$= 80 \text{ cm}$$

Let us take perimeter of the square be z

$$\text{Perimeter of the rectangle} = 80 - z = 48 \text{ or } z - 80 = 48$$

So we cannot find the answer.

40) Answer: c)

$$\text{Area of a rectangular field} = l * b = 36 * 22 = 792 \text{ cm}^2$$

$$\text{Required cost of grassing} = 792 * 3 = \text{Rs.} 2376$$

41) Answer: B

$$\text{Area of the square} = d^2/2 = 512$$

$$\Rightarrow d^2 = 1024$$

$$\Rightarrow d = 32$$

$$\text{Length of the rectangle} = 32 + 3 = 35$$

$$\text{Area of the rectangle} = lb = 560$$

$$\Rightarrow 35 * b = 560$$

$$\Rightarrow b = 16 \text{ cm}$$

$$\text{Radius of the sphere} = 16 + 5 = 21 \text{ cm}$$

$$\text{Volume of the sphere} = (4/3) * \pi * r^3$$

$$\Rightarrow 4/3 * 22/7 * 21 * 21 * 21$$

$$\Rightarrow 38808 \text{ cm}^3$$

42) Answer: c)

$$\text{Circumference of the circle} = 2 * 22/7 * r$$

$$44 = 2 * 22/7 * r$$

$$\text{Radius of the circle} = 7 \text{ cm}$$

$$\text{Radius of the cone} = 7 \text{ cm}$$

$$\text{Volume of the cone} = 1/3 * \pi * r^2 * h$$

$$1232 = 1/3 * (22/7) * 7 * 7 * h$$

$$h = 24 \text{ cm}$$

$$\text{Slanting height of the cone} = \sqrt{h^2 + r^2}$$

$$= \sqrt{24^2 + 7^2}$$

$$= 25 \text{ cm}$$

43) Answer: a)

$$\text{Surface area of the sphere} = 4\pi r^2 = 4 * 22/7 * r * r$$

$$616 = 4 * 22/7 * r * r$$

$$\text{Radius of the sphere} = 7 \text{ cm}$$

$$\text{Radius of the cylinder} = 7 \text{ cm}$$

$$\text{Curved surface area of the cylinder} = 2\pi r h = 2 * 22/7 * r * h$$

$$= 2 * 22/7 * 7 * 12$$

$$= 528 \text{ cm}^2$$

44) Answer: b)

$$(A + B)'s \text{ per day work} = 1/30$$

$$(B + C)'s \text{ per day work} = 1/20$$

$$(C + A)'s \text{ per day work} = 1/40$$

$$(A + B + B + C + C + A) = 1/30 + 1/20 + 1/40$$

$$= (4 + 6 + 3)/120$$

$$= 13/120$$

$$(2A + 2B + 2C) = 13/120$$

$$(A + B + C) = 13/240$$

$$A = 13/240 - 1/20$$

$$= (13 - 12)/240$$

$$= 1/240$$

A alone complete the whole work in 240 days.

45) Answer: d)

Let A can complete the work in x days

$$\text{Work completed by A in one day} = 1/x$$

$$\text{Work completed by B in one day} = (125/100) * (1/x)$$

$$= 5/4x$$

$$\text{Work completed by C in one day} = (140/100) * (5/4x)$$

$$= 7/4x$$

According to the question,

$$35((1/x) + (5/4x) + (7/4x)) = 1$$

$$16/4x = 1/35$$

$$x = 140$$

$$\text{B can complete the work in } 4x/5 \text{ days} = 4 * 140/5 = 112 \text{ days}$$

$$\text{B can complete 75\% of the work in} = 3/4 * 112 = 84 \text{ days}$$

46) Answer: b)

$$\text{The work done by A and B in one day} = 1/5$$

$$\Rightarrow 1/A + 1/B = 1/5$$

$$\text{The work done by B in one day} = 1/11$$

$$\text{The work done by A in one day} = 1/5 - 1/11 = 6/55$$

Top 50 Arithmetic Problems for SBI Clerk Prelims 2019

A alone completes the work by $55/6$ days or $9 \frac{1}{6}$ days.

47) Answer: a)

The work done by A and B in one hour,

$$1/A + 1/B = 1/30$$

The work done by B in one hour,

$$1/B = 1/30 - 1/12 = (2 - 5)/60 = -1/20$$

So the Pipe B can empty the tank in $20/1 = 20$ h

48) Answer: c)

One man equal to two women

$$m=2w$$

So 18 men equal to 36 women

$$18m = 36w$$

$$36 * 20 * 8 = 40 * 20 * ?$$

$$? = 7.2 \text{ hours}$$

49) Answer: b)

Speed of boat in still water = $3x$

Speed of stream = $2x$

Upstream speed = $3x - 2x = x$

Downstream speed = $3x + 2x = 5x$

According to the question,

$$80/5x + 80/x = 12$$

$$80 + 400 = 12 * 5x$$

$$x = 8 \text{ kmph}$$

$$\text{Speed of stream} = 8 * 2 = 16 \text{ kmph}$$

50) Answer: e)

Downstream speed of boat in stream of $2 \text{ km/hr} = 64/4 = 16 \text{ km/hr}$

Boat speed in still water = $16 - 2 = 14 \text{ km/hr}$

Time taken to travel 84 km upstream in steam of $4 \text{ km/hr} = 84/(14 - 4) = 8.4 \text{ hrs}$



Get all our mock tests ebooks, free pdfs, daily quizzes

PLATINUM PACKAGE

12 Months Validity

SBI | IBPS | RBI | NIACL | LIC | SSC | RRB

GET MOCKS



THE ULTIMATE **Get it Now**

Data Interpretation Book (Printed Edition)

Especially for SBI, IBPS, RBI, Insurance & Other Competitive Exams

Based on New Pattern & Absolute Guide to Crack Upcoming Bank Exams

THE ULTIMATE **Get it Now**

Application Sums Book (Printed Edition)

Especially for SBI, IBPS, RBI, Insurance & Other Competitive Exams

Based on New Pattern & Absolute Guide to Crack Upcoming Bank Exams

THE ULTIMATE **Get it Now**

Seating Arrangements Book (Printed Edition)

Especially for SBI, IBPS, RBI, Insurance & Other Competitive Exams

Based on New Pattern & Absolute Guide to Crack Upcoming Bank Exams