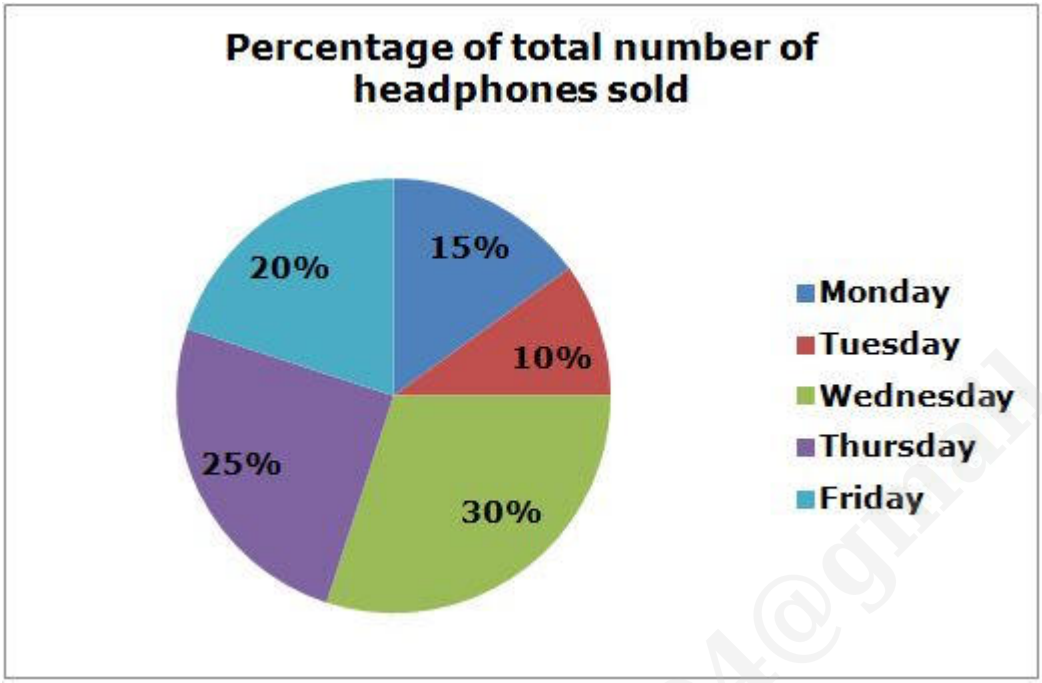
1. Questions

Study the following information carefully and answer the questions.

The given pie chart shows the percentage distribution of the total number of headphones sold on five different days namely Monday, Tuesday, Wednesday, Thursday and Friday respectively.



Note:

i). The total number of headphones sold on Monday is 200 less than the total number of headphones sold on Friday.

The total number of headphones sold on Saturday was 42% more than that on Tuesday. The ratio of wired to wireless headphones sold on Saturday is 3:5. Find the difference between the number of wireless and wired headphones sold on Saturday.

a. 145

b. 142

c. 160

d. 134

e. 111

2. Questions

On Friday, 45% of the headphones sold are JBL brand, and the rest are Boat brand. If the cost price of each pair of boat headphones is Rs. 60, then find the overall revenue generated from selling boat headphones.

a. Rs. 26400

b. Rs. 32400

c. Rs. 24500

d. Rs. 18900

e. Rs. 15600

3. Questions

On Monday, the ratio of the number of defective to non-defective headphones sold was 7:8 and the number of non-defective headphones sold on Thursday was 120 more than that on Monday. Find the number of defective headphones sold on Thursday.

a. 650

b. 560

c. 450

d. 440

e. 740

4. Questions

Find the average number of headphones sold on all the days together.

a. 700

b. 960

c. 800

d. 560

e. 600

5. Questions

On Friday, out of the total number of headphones manufactured, 80% were sold. Find the total number of headphones manufactured on Friday.

a. 1000

b. 1200

c. 800

d. 1450

e. 1300

6. Questions

Study the following information carefully and answer the questions.

The given table chart shows the total number of animals (tiger + Lion) and also given the ratio of the number of tigers to lions in five different zoos A, B, C, D and E respectively.

Zoo	Total number of animals	Ratio of number of Tiger to Lion
A	480	11:5
B	640	5:3
C	720	5:4
D	400	9:7
E	250	2:3

The total number of animals in Zoo F is 25% more than that of Zoo C. The ratio of the number of tigers in Zoo B to F is 4:3. Find the number of lions in Zoo F.

a. 550

b. 600

c. 450

d. 480

e. 780

7. Questions

The number of elephants in Zoo D is 4/5th of the number of tigers in Zoo D. The ratio of the number of elephants in Zoo D to E is 9:11. Find the number of elephants in Zoo E.

a. 200

b. 220

c. 190

d. 250

e. 160

8. Questions

The number of rabbits in Zoo A is x% more than the number of lions in Zoo A. The total number of rabbits and tigers in Zoo A is 540. Find the value of x.

a. 44

b. 40

c. 32

d. 56

e. 25

9. Questions

Find the difference between the total number of animals in Zoo C and the number of lions in Zoo

E.

a. 570

b. 620

c. 700

d. 450

e. 380

10. Questions

The total number of animals in Zoo D is what percentage more or less than the number of tigers in Zoo E.

a. 250% less

b. 300% more

c. 180% less

d. 320% more

e. 220% more

11. Questions

Vessels A and B contain mixtures of milk and water and the quantity of water in Vessel A is 12 litres more than the quantity of milk in it and the quantity of water in Vessel B is 125% more than the quantity of milk in it. If 52 litres of mixture from Vessel B is added to Vessel A, then the ratio of the quantity of milk to water in Vessel A becomes 2:3. Find the initial quantity of water in Vessel A.

a. 66 litres

b. 60 litres

c. 55 litres

d. 45 litres

e. 70 litres

12. Questions

Q and R together can finish a work in 15 days, whereas R and P together can take 20 days to finish it. Find the difference between the time taken by P and Q to finish alone, if P, Q, and R together can finish a work in 10 days.

a. 5 days

b. 10 days

c. 15 days

d. 7 days

e. 11 days

13. Questions

A 180-meter long train can cross a pole in 9 seconds. The same train takes 1 hour more to cover 288km with stoppage as compared to without stoppage. For how much time does the train stop per hour?

a. 10 minutes

b. 12 minutes

c. 8 minutes

d. 22 minutes

e. 18 minutes

14. Questions

Vignesh bought two articles A and B at the same cost. He marked article A as 40% above its cost price and article B as 50% above its cost price and later decided to give a discount of Rs. 1300 on article A and a discount of 20% on article B. Find the cost price of each article if the selling price of article A is 5% less than that of article B.

a. Rs. 5000

b. Rs. 2450

c. Rs. 3400

d. Rs. 1800

e. Rs. 5400

15. Questions

The average present age of P, Q, and R is 25 years and the present age of R is 15 years. The ratio of P's age after 8 years to Q's age after 2 years is 4:3. If the present age of S is 25% more than that of Q, then find the present age of S.

a. 35 years

b. 28 years

c. 32 years

d. 40 years

e. 15 years

16. Questions

A and B invested Rs. 3000 and Rs. 3600 in a business for 8 months and 12 months, respectively. A,

being the active working partner, takes 10% of the total profit as salary and the rest of the profit is divided by A and B. If the profit received by B is Rs.990 more than that of A, then find the total profit obtained by them.

a. Rs. 7500
b. Rs. 6300
c. Rs. 5600
d. Rs. 6500
e. Rs. 8700

17. Questions

Babu invested Rs. 2000 in scheme A at a rate of 10% p.a. for 5 years in simple interest. He invested 5 times the interest received in scheme A, in scheme B at a rate of 20% p.a. in compound interest for 2 years. Find the total interest received by him in schemes A and B.

a. Rs. 4000
b. Rs. 3200
c. Rs. 2500
d. Rs. 4200
e. Rs. 3500

18. Questions

Pipe A alone can fill a tank in 36 hours and pipe B and A together can fill a tank in 24 hours. The ratio of efficiency of Pipes C to B is 4:1. 25% of the tank is filled by Pipe B and the remaining tank is filled by Pipe C. Find the total time taken to fill the whole tank.

a. 30 hours
b. 31.5 hours
c. 32.6 hours
d. 21 hours
e. 34.5 hours

19. Questions

The ratio of the speed of the boat in still water to the speed of the stream is 3:1. The time taken by the boat to cover 240 km downstream and 360 km upstream is 40 hours. Find the time taken by the boat to cover 432 km upstream.

a. 24 hours
b. 25 hours

c. 36 hours

d. 14 hours

e. 19 hours

20. Questions

The curved surface area of the cylinder is 880 cm^2 and the radius of the cylinder is 7 cm. If the height of the cylinder is reduced by 10cm and the radius of the cylinder is doubled, then find the volume of the right circular cylinder.

a. 4500 cm^3

b. 6160 cm^3

c. 3500 cm^3

d. 2940 cm^3

e. 5600 cm^3

21. Questions

What value should come in the place of (?) in the following questions?

196 + (12*4) -25 =? +9

a. 200

b. 220

c. 210

d. 240

e. 300

22. Questions

25% of 720 + 9*5 = $?^2$

a. ±16

b. -16

c. ±15

d. 17

e. -18

23. Questions

(?+15)*2+180 = 40*8 + 120

a. 150

b. 115

c. 165

d. 170

e. 172

24. Questions

(112+104 -86)*3=13 * ?

a. 35

b. 43

c. 32

d. 56

e. 30

25. Questions

$?^3=10^3$+31+ (20*15)

a. 12

b. 14

c. 17

d. 11

e. 13

26. Questions

What approximate value should come in the place of (?) in the following questions?

21.99*10.01- √168.99 *12.44 +13.99 = ?+2.11^3

a. 70

b. 65

c. 60

d. 80

e. 46

27. Questions

$(19.99)^2$ + √1089.01 – 10.78 *? = 174.90 +√23

a. 25

b. 23

c. 35

d. 30

e. 55

28. Questions

$(24.99)^2$+√80.9 - 141.38 =?

a. 493

b. 495

c. 500

d. 550

e. 340

29. Questions

11.86 % of 499.87 + 20.11 % of 624.99 – 26.78 =?

a. 160

b. 159

c. 172

d. 123

e. 158

30. Questions

$\sqrt[3]{}$1727.99 +√784.01 =? – 24.76 % of 599

a. 190

b. 200

c. 220

d. 150

e. 100

31. Questions

What value should come in the place of (?) in the following number series?

11, 31, 91, ?, 811

a. 280

b. 271

c. 456

d. 460

e. 380

32. Questions

14, 30, ?, 110, 174

a. 65

b. 62

c. 75

d. 55

e. 45

33. Questions

22, 27, 32, ?, 42

a. 39

b. 37

c. 23

d. 30

e. 31

34. Questions

15, ?, 33, 53, 59

a. 25

b. 20

c. 27

d. 18

e. 16

35. Questions

32, 43, 65, 98, ?

a. 142

b. 155

c. 133

d. 129

e. 105

36. Questions

Find out the wrong number in the following number series.

7200, 1200, 260, 60, 20

a. 1200

b. 260

c. 60

d. 20

e. 7200

37. Questions

50, 72, 96, 120, 144

a. 144

b. 120

c. 72

d. 50

e. 96

38. Questions

2, 4, 14, 38, 159

a. 14

b. 2

c. 4

d. 159

e. 38

39. Questions

30, 68, 135, 222, 350

a. 30

b. 68

c. 135

d. 350

e. 222

40. Questions

45, 180, 127, 260, 205

a. 127

b. 45

c. 180

d. 260

e. 205

41. Questions

Following question contains two equations as I and II. You have to solve both equations and determine the relationship between them and give answer as,

i). $x^2+29x+180=0$

ii). $y^2-25y+84=0$

a. $x > y$

b. $x \geq y$

c. $x = y$ or relationship can't be determined

d. $x < y$

e. $x \leq y$

42. Questions

i). $3x^2+15x+18=0$

ii). $2y^2+13y+20=0$

a. $x > y$

b. $x \geq y$

c. $x = y$ or relationship can't be determined

d. $x < y$

e. $x \leq y$

43. Questions

i). $x^2 - 17x + 42 = 0$

ii). $y^2 + 18y + 32 = 0$

a. $x > y$

b. $x \geq y$

c. $x = y$ or relationship can't be determined

d. $x < y$

e. $x \leq y$

44. Questions

i). $x^2 + 24 = 40$

ii). $y^2 + 4y = 0$

a. $x > y$

b. $x \geq y$

c. $x = y$ or relationship can't be determined

d. $x < y$

e. $x \leq y$

45. Questions

i). $x^2 - x = 6$

ii). $y^2 + 7y + 10 = 0$

a. $x > y$

b. $x \geq y$

c. $x = y$ or relationship can't be determined

d. $x < y$

e. $x \leq y$

Explanations:

1. Questions

20% = 200 + 15%

20% - 15% = 200

The total number of headphones sold on all days = 4000

The number of headphones sold on Monday = 4000 * 15/100 = 600

The number of headphones sold on Tuesday = 4000 * 10/100 = 400

The number of headphones sold on Wednesday = 4000 * 30/100 = 1200

The number of headphones sold on Thursday = 4000 * 25/100 = 1000

The number of headphones sold on Friday = 4000 * 20/100 = 800

Answer: B

The total number of headphones sold on Saturday = 400 * 142/100 = 568

The number of wireless headphones sold on Saturday = 568 * 5/8 = 355

The number of wired headphones sold on Saturday = 568 * 3/8 = 213

Required difference = 355 – 213 = 142

2. Questions

20% = 200 + 15%

20% - 15% = 200

The total number of headphones sold on all days = 4000

The number of headphones sold on Monday = 4000 * 15/100 = 600

The number of headphones sold on Tuesday = 4000 * 10/100 = 400

The number of headphones sold on Wednesday = 4000 * 30/100 = 1200

The number of headphones sold on Thursday = 4000 * 25/100 = 1000

The number of headphones sold on Friday = 4000 * 20/100 = 800

Answer: A

The total number of headphones sold on Friday = 800

The number of Boat headphones sold on Friday = 800 * 55/100 = 440

The revenue generated = 440 * 60 = Rs. 26400

3. Questions

20% = 200 + 15%

20% - 15% = 200

The total number of headphones sold on all days = 4000

The number of headphones sold on Monday = 4000 * 15/100 = 600

The number of headphones sold on Tuesday = 4000 * 10/100 = 400

The number of headphones sold on Wednesday = 4000 * 30/100 = 1200

The number of headphones sold on Thursday = 4000 * 25/100 = 1000

The number of headphones sold on Friday = 4000 * 20/100 = 800

Answer: B

The total number of headphones sold on Monday = 600

The number of defective headphones sold on Monday = 600 * 7/15 = 280

The number of non-defective headphones sold on Monday = 600 * 8/15 = 320

The number of non-defective headphones sold on Thursday = 320 + 120 = 440

The number of defective headphones sold on Thursday = 1000 – 440 = 560

4. Questions

20% = 200 + 15%

20% - 15% = 200

The total number of headphones sold on all days = 4000

The number of headphones sold on Monday = 4000 * 15/100 = 600

The number of headphones sold on Tuesday = 4000 * 10/100 = 400

The number of headphones sold on Wednesday = 4000 * 30/100 = 1200

The number of headphones sold on Thursday = 4000 * 25/100 = 1000

The number of headphones sold on Friday = 4000 * 20/100 = 800

Answer: C

The total number of headphones sold on all the days = 4000

Required average = 4000/5 = 800

5. Questions

20% = 200 + 15%

20% - 15% = 200

The total number of headphones sold on all days = 4000

The number of headphones sold on Monday = 4000 * 15/100 = 600

The number of headphones sold on Tuesday = 4000 * 10/100 = 400

The number of headphones sold on Wednesday = 4000 * 30/100 = 1200

The number of headphones sold on Thursday = 4000 * 25/100 = 1000

The number of headphones sold on Friday = 4000 * 20/100 = 800

Answer: A

The total number of headphones sold on Friday = 800

The total number of headphones manufactured on Friday = 800 * 100/80 = 1000

6. Questions

The total number of animals in Zoo A = 480

The number of tigers in Zoo A = 480 * 11/16 = 330

The number of lions in Zoo A = 480 * 5/16 = 150

Similarly,

Zoo	Total number of animals	The number of tigers	The number of lions
A	480	330	150
B	640	400	240
C	720	400	320
D	400	225	175
E	250	100	150

Answer: B

The total number of animals in Zoo F = 720 * 125/100 = 900

The number of tigers in Zoo F = 400 * 3/4 = 300

The number of lions in Zoo F = 900 – 300 = 600

7. Questions

The total number of animals in Zoo A = 480

The number of tigers in Zoo A = 480 * 11/16 = 330

The number of lions in Zoo A = 480 * 5/16 = 150

Similarly,

Zoo	Total number of animals	The number of tigers	The number of lions
A	480	330	150
B	640	400	240
C	720	400	320
D	400	225	175
E	250	100	150

Answer: B

The number of elephants in Zoo D = 225 * 4/5 = 180

The number of elephants in Zoo E = 180 * 11/9 = 220

8. Questions

The total number of animals in Zoo A = 480

The number of tigers in Zoo A = 480 * 11/16 = 330

The number of lions in Zoo A = 480 * 5/16 = 150

Similarly,

Zoo	Total number of animals	The number of tigers	The number of lions
A	480	330	150
B	640	400	240
C	720	400	320
D	400	225	175
E	250	100	150

Answer: B

The number of tigers in Zoo A = 330

The number of rabbits in Zoo A = 540 – 330 = 210

210 = 150 * (100+x)/100

140 = 100 + x

x = 40

9. Questions

The total number of animals in Zoo A = 480

The number of tigers in Zoo A = 480 * 11/16 = 330

The number of lions in Zoo A = 480 * 5/16 = 150

Similarly,

Zoo	Total number of animals	The number of tigers	The number of lions
A	480	330	150
B	640	400	240
C	720	400	320
D	400	225	175
E	250	100	150

Answer: A

The total number of animals in Zoo C = 720

The number of lions in Zoo E = 150

Required difference = 720 – 150 = 570

10. Questions

The total number of animals in Zoo A = 480

The number of tigers in Zoo A = 480 * 11/16 = 330

The number of lions in Zoo A = 480 * 5/16 = 150

Similarly,

Zoo	Total number of animals	The number of tigers	The number of lions
A	480	330	150
B	640	400	240
C	720	400	320
D	400	225	175
E	250	100	150

Answer: B

The total number of animals in Zoo D = 400

The number of tigers in Zoo E = 100

Required percentage = (400-100)/100 * 100 = 300% more

11. Questions

Answer: B

According to the question,

Let, the initial quantity of milk in Vessel A be x litres

So, the initial quantity of water in Vessel A = (x+12) litres

The ratio of the quantity of milk to water in Vessel B = 100: 225 = 4: 9

The quantity of milk in Vessel B = 52*4/13 = 16 litres

The quantity of water in Vessel B = 52 * 9/13 = 36 litres

(x+16)/(x+12+36) = 2/3

3x +48 = 2x + 96

x = 48

The initial quantity of water in Vessel A = 48 +12 = 60 litres

12. Questions

Answer: B

According to the question

Let, the total amount of work = 60 units

The efficiency of Q and R = 4 units/ day

The efficiency of R and P = 3 units/day

The efficiency of P, Q and R = 6 units/day

The efficiency of P = 2 units/day

The efficiency of Q = 3 units/day

The time taken by P alone to finish the work = 60/2 = 30 days

The time taken by Q alone to finish the work = 60/3 = 20 days

Required difference = 30-20 = 10 days

13. Questions

Answer: B

According to the question

Speed of the train = 180/9 = 20 *18/5 = 72 km/hr

Time taken by train to travel the given distance without stoppages = 288/72 = 4 hours

Time taken by train to travel the given distance with stoppages = 4 + 1 = 5 hours

Speed of the train with stoppages = 288/5= 57.6 km/hr

Difference between the speed = 72 - 57.6 = 14.4 km/hr

Required stoppage time = 14.4/72 * 60 = 12 minutes

14. Questions

Answer: A

According to the question

Let, the cost price of each article = 100x

The marked price of article A = 100x*140/100 = 140x

The marked price of article B = 100x*150100 = 150x

Selling price of article A = (140x -1300)

Selling price of article B = (150x -150x*0.2) = Rs. 120x

140x-1300 = (19/20) * 120x

26x = 1300

x = 50

The cost price of each article = 50*100 = Rs. 5000

15. Questions

Answer: A

According to the question,

The present age of R = 15 years

The present age of P and Q = 75 – 15 = 60 years

4x -8 + 3x -2 = 60

7x – 10 = 60

7x = 70

x = 10

The present age of Q = 30 – 2 = 28 years

The present age of S = 28 * 125/100 = 35 years

16. Questions

Answer: B

According to the question,

The profit share of A to B = (3000 * 8) : (3600 * 12) = 5:9

Let, the total profit earned be 100x

Amount received by A as salary = 100x * 0.10 = 10x

Remaining profit = 100x -10x = Rs. 90x

The share of A from the remaining profit = 90x * 5/14 = Rs. 225x/7

The share of B from the remaining profit = 90x * 9/14 = Rs. 405x/7

(405x/7) – {(225x/7) + 10x} = 990

110x/7 = 990

x = 63

The total profit = 100 * 63 = Rs. 6300

17. Questions

Answer: B

According to the question,

For scheme A,

SI = PNR/100

SI = 2000 * 10 * 5/100

SI =Rs. 1000

For scheme B,

The amount invested in scheme B= 5 * 1000 = Rs. 5000

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

CI = 5000 * 1.2*1.2 – 5000

CI =Rs. 2200

The total interest received by him in schemes A and B = 2200 + 1000 = Rs. 3200

18. Questions

Answer: B

According to the question,

Let, the total units of water be filled by 72 units

Part of the tank filled by Pipe A in one hour = 2 units

Part of the tank filled by Pipes B and A together in one hour = 3 units

Part of the tank filled by Pipe B in one hour = 3 – 2 = 1 unit

Part of the tank filled by Pipe C in one hour = 1 * 4/1 = 4 units

Time taken by Pipe B to fill 25% of the tank = 72 * 25/100 = 18/1 = 18 hours

Time taken by Pipe C to fill 75% of the tank = 72 * 3/4 * 1/4 = 54/4 = 13.5 hours

Required time taken =18 + 13.5 = 31.5 hours

19. Questions

Answer: C

According to the question,

The speed of the boat in still water = 3x km/hr

The speed of the stream = x km/hr

The downstream speed of the boat = 3x+x = 4x km/hr

The upstream speed of the boat = 3x –x = 2x km/hr

240/4x + 360/2x = 40

60/x + 180/x = 40

240/x = 40

x =6

The upstream speed of the boat = 2 * 6 = 12 km/hr

Required time taken = 432/12 = 36 hours

20. Questions

Answer: B

According to the question,

The curved surface area of the cylinder = 880 cm^2

$880 = 2\pi rh$

880 = 2 * 22/7 * 7 * h

h = 20 cm

New height of the cylinder = 20 – 10 = 10 cm

New radius of the cylinder = 7 * 2 = 14 cm

Volume of the right circular cylinder = $\pi r^2 h$ cm^3

= (22/7) * 14 * 14 * 10

= 6160 cm^3

21. Questions

Answer: C

196 + (12*4) -25 =? +9

196+48-25 = ?+9

244-25=?+9

219=?+9

? =210

22. Questions

Answer: C

25% of 720 + 9*5 = $?^2$

180+45 = $?^2$

$?^2$ = 225

? = ±15

23. Questions

Answer: B

(?+15)*2+180 = 40*8 + 120

(?+15)*2 = 320-180 + 120

(? +15) * 2 = 440 – 180

(?+15) * 2 = 260

(?+15) = 130

? = 115

24. Questions

Answer: E

(112+104 -86)*3=13 * ?

(216-86) *3 = 13 * ?

(130) *3 = 13 *?

390 = 13 *?

?=30

25. Questions

Answer: D

$?^3=10^3+31+ (20*15)$

$?^3$ = 1000+31+300

$?^3=1331$

? =11

26. Questions

Answer: A

$21.99*10.01- \sqrt{168.99} *12.44+13.99 = ?+2.11^3$

22*10 – 13*12+14 = ?+8

220-156+14 = ?+8

64+14 = ?+8

78-8 = ?

?=70

27. Questions

Answer: B

$(19.99)^2 + \sqrt{1089.01} -10.78*? = 174.90 +\sqrt{23}$

400 + 33-11 *? = 180

433- 11*? = 180

? = 253/11

? = 23

28. Questions

Answer: A

$(24.99)^2+\sqrt{80.9}$ - 141.38 =?

$(25)^2$+9-141=?

634-141=?

?=493

29. Questions

Answer: E

11.86% of 499.87 + 20.11% of 624.99 – 26.78 =?

60+125-27=?

185-27=?

?=158

30. Questions

Answer: A

$\sqrt[3]{1727.99}$ +$\sqrt{784.01}$ =? -24.76% of 599

12+28=?-150

40+150=?

?=190

31. Questions

Answer: B

11*3 – 2 =31

31*3 – 2 = 91

91*3 – 2 = 271

271*3 – 2 = 811

32. Questions

Answer: B

14 + 16 = 30

30 + 32 = 62

62 + 48 = 110

110 + 64 = 174

33. Questions

Answer: B

4 * 5 + 2 = 22

4 * 6 + 3 = 27

4 * 7 + 4 = 32

4 * 8 + 5 = 37

4 * 9 + 6 = 42

34. Questions

Answer: C

$4^2 - 1 = 15$

$5^2 + 2 = 27$

$6^2 - 3 = 33$

$7^2 + 4 = 53$

$8^2 - 5 = 59$

35. Questions

Answer: A

32 + 11 = 43

43 + 22 = 65

65 + 33 = 98

98 + 44 = 142

36. Questions

Answer: B

7200/6 = 1200

1200/5 = 240

240/4 = 60

60/3 = 20

37. Questions

Answer: D

12 * 4 = 48

12 * 6 = 72

12 * 8 = 96

12 * 10 = 120

12 * 12 = 144

38. Questions

Answer: A

2 * 1 + 2 = 4

4 * 2 + 3 =11

11 * 3 + 5 = 38

38 * 4 + 7 = 159

39. Questions

Answer: C

$3^3 + 3 = 30$

$4^3 + 4 = 68$

$5^3 + 5 = 130$

$6^3 + 6 = 222$

$7^3 + 7 = 350$

40. Questions

Answer: A

45+135 = 180

180-55 = 125

125+135 = 260

260-55 = 205

41. Questions

Answer: D

$x^2+29x+180=0$

$x^2+20x+9x+180=0$

(x+20) (x+9)=0

x=-9,-20

y^2-25y+84=0

y^2-21x-4x+84=0

(y-21) (y-4) = 0

y=21,4

Hence, x < y

42. Questions

Answer: C

$3x^2$+15x+18=0

$3x^2$+6x+9x+18=0

x=-(6/3), -(9/3)

x=-2,-3

$2y^2$+13y+20=0

$2y^2$+8y+5y+20=0

y= -4, -2.5

Hence, x = y or relationship cannot be determined

43. Questions

Answer: A

x^2 – 17x + 42 = 0

x^2 – 14x -3x + 42 = 0

(x -14) (x -3) = 0

x = 14, 3

y^2 + 18y + 32 = 0

y^2 + 16y + 2y + 32 = 0

(y + 16) (y + 2) = 0

y = -2, -16

Hence, x > y

44. Questions

Answer: C

$x^2 + 24 = 40$

$x^2 = 16$

$x = -4, 4$

$y^2 + 4y = 0$

$y = 0, -4$

Hence, x = y or relationship cannot be determined

45. Questions

Answer: B

$x^2 - x = 6$

$x^2 - x - 6 = 0$

$x^2 + 2x - 3x - 6 = 0$

$(x + 2)(x - 3) = 0$

$x = -2, 3$

$y^2 + 7y + 10 = 0$

$y^2 + 5y + 2y + 10 = 0$

$(y+5)(y+2) = 0$

$y = -5, -2$

Hence, $x \geq y$