Name: Faryal Khaliq

Subject: General Science and Abilities.

Good for math portion
Work on theory too

Section-II

Q. No. 6.

(a) Three candidates contested elections in a constituency of Islamabad and received votes 15000, 10,000, 8000 respectively. What is the percentage of total votes of the winning candidate.

Given:

Votes of Candidate, A = 15,000

Votes of Candidate, B = 10,000

Votes of Candidate, C = 8000

To Find:

Percentage of total votes of the winning candidate = ?

Solution:

To find the percentage of votes casted for one candidate, we need to find total no. of votes casted.

Total no. of votes casted = A+B+C

Total no of votes casted = 15,000+10,000+8000

Date: / /

Day: Mon Tue Wed Thu Fri Sat

Total no. of votes casted = 33,000

Percentage of total votes of the winning candidate = $\frac{A}{\text{Total no. of votes}} \times 100$

Percentage of total votes of A = $\frac{15,000}{33,000} \times 100$

Percentage of total votes of A = 45.45 %.

b.

The ratios of angles of a triangle are 3:4:5 in total distribution. Find the each angle.

Given:

Let, the ~~ratios of~~ angles of a triangle, a, b and c.

Ratio of angle, a = 3

Ratio of angle b = 4

Ratio of angle c = 5

To find:

~~Find~~ each angle = ?

Solution:

Total parts = a + b + c.

Total parts = 3 + 4 + 5

Total parts = 12 parts.

Sum of the total angles of a triangle = 180°

Angle of 1 part = $\frac{\text{Sum of all angles}}{\text{Total parts}}$

Angle of 1 part = $\frac{180^{15}}{12}$

Angle of one part = 15°

So,

Angle of a = 15° x 3

Angle of a = 45°

Angle of b = 15° x 4

Angle of b = 60°

Angle of c = 15° x 5

Angle of c = 75°

C.

In a sports meet, group of 4 boys and girls are to be formed.... ?

Given:

No. of boys in each group = 4

No. of girls in each group = 6.

Total no. of girls available = 102.

To find:

Total No. of boys required = ?

Solution:

No. of groups formed by 102 girls = $\frac{102}{6 \text{ girls per group}}$

No of groups formed by 102 girls = 17 groups

Hence,

Total groups = 17.

No. of boys required = Total groups × No. of boys per group

No. of boys required = 17 × 4

No. of boy required = 68 boys.

---

d.

The ratio of present ages of A & B is 6:7. After 5 years this ratio would become 7:8. Find present ages of A and B.

Solution:

Let the present ages of A and B, is 6x and 7x respectively.

$$\frac{A}{B} = \frac{6x}{7x}$$

$$7A = 6B \quad \text{— (1)}$$

The ratio of age of A and B after 5 years will be.

$$\frac{6x+5}{7x+5} = \frac{7}{8}$$

$$8(6x+5) = 7(7x+5)$$

$$48x + 40 = 49x + 35$$

$$49x - 48x = 40 - 35$$

$$x = 5$$

Hence, the present age of A and B is:-

$$\frac{A}{B} = \frac{6x}{7x} \Rightarrow \frac{6(5)}{7(5)}$$

$$\frac{A}{B} = \frac{30}{35}$$

The present age of A is 30 and the present age of B 35 years

Q8.

a.

The sum of three consecutive odd numbers is 273. What are the three odd numbers.

Solution:

Let the three consecutive odd numbers ~~are~~ be.

First odd number = x

2nd odd number = $x+2$.

3rd odd number = $x+4$.

So,

$$x + (x+2) + (x+4) = 273.$$

$$x + x + 2 + x + 4 = 273.$$

$$3x + 6 = 273.$$

$$3x = 273 - 6.$$

$$3x = 267$$

$$x = \frac{267}{3}$$

$$x = 89$$

Now by putting the values of x, we can find other two odd numbers.

2nd Odd number = $x+2 = 89+2$

2nd Odd number = 91

3rd odd number = $x+4 = 89+4$

3rd odd number = 93

Hence,

The three consective odd numbers are 89, 91, 93.

(b)

Find the missing number in given series.

i) 4, 16, 36, 64, ?, 144

Lets check the sequences of the given series.

4, 16, 36, 64, ?, 144

4^2, 6^2, 8^2, 12^2

So, the missing no. is square root of square of consecutive even numbers.

The missing no. is = 100

ii) 30, 29, 27, ?, 20, 15

30, 29, 27, ?, 20, 15

-1, -2, -3, -4, -5

So, the missing no. is = 24

iii) 1, 7, 15, 25, ?, 51

1, 7, 15, 25, ?, 51.

+6

1 + 6 = 7

7 + 8 = 15

15 + 10 = 25

25 + 12 = 37

37 + 14 = 51

So, the missing number is 37.

iv) 0, 2, 6, 12, 20, 30, ?.

0, 2, 6, 12, 20, 30, ?

0 + 2 = 2.

2 + 4 = 6

6 + 6 = 12

12 + 8 = 20

20 + 10 = 30.

30 + 12 = 42.

So, the missing number is 42.

Date: / / Day: Mon Tue Wed Thu Fri Sat

v) 48, 24, 72, 35, 108, ?

48 $\xrightarrow{\div 2}$ 24 $\xrightarrow{\times 3}$ 72 $\xrightarrow{\div 2}$ 35 $\xrightarrow{\times 3}$ 108, ?

The missing no. is 54

C.

Find out the correct word for given jumbled spelling.

i) THRSI
Shirt

ii) GNDREA
Garden

iii) SCHAMOT

iv) ONLNDO
London

v) HIODALY
Holiday.