

Name: Faryal Khaliq

Subject: General Science and Abilities.

Section-II

Q. No. 6.

(a) Three candidates contested elections in a constituency of Islamabad and received votes 15,000, 10,000, 8,000 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 = 8,000

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 = $15,000 + 10,000 + 8,000$

Date: / /

Day: (Mon) (Tue) (Wed) (Thu) (Fri) (Sat)

Total no. of votes casted = 33,000

Percentage of total votes of

the winning candidate = $A \times 100$

Total no. of votes

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 = $\frac{180^\circ}{12}$

Angle of one part = 15°

So,

Angle of a = $15^\circ \times 3$

Angle of a = 45°

Angle of b = $15^\circ \times 4$

Angle of b = 60°

Angle of c = $15^\circ \times 5$

Angle of c = 75°

c.

In a sports meet, group of 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 \times 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

.98.

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.

$$\text{2nd Odd number} = x + 2 = 89 + 2$$

$$\text{2nd Odd number} = 91$$

$$\text{3rd odd number} = x + 4 = 89 + 4$$

$$\text{3rd odd number} = 93$$

Hence

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

(b)

Find the missing number in
given series.

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

Let's check the sequences of the
given series.

$$4, \quad 16, \quad 36, \quad 64; \quad ? \quad ; \quad 144$$

$\underbrace{\quad}_{4^2} \quad \underbrace{\quad}_{6^2} \quad \quad \quad \quad 8^2 \quad \quad \quad 12^2$

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

The missing no. is = 100

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

$$30, \quad 29, \quad 27, \quad ? \quad , \quad 20, \quad 15$$

$\underbrace{\quad}_{-1} \quad \underbrace{\quad}_{-2} \quad \underbrace{\quad}_{-3} \quad \underbrace{\quad}_{-4} \quad \underbrace{\quad}_{-5}$

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, ?
+2

$$0 + 2 = 2$$

$$2 + 4 = 6$$

$$6 + 6 = 12$$

$$12 + 8 = 20$$

$$20 + 10 = 30$$

$$30 + 12 = 42$$

So, the missing number is **42**.

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) TARSI

Shirt

ii) GNDREA

Garden

iii) SCHAMOT

iv) ONLNDO

London

v) HIODALY

Holiday