

# Dos and Don'ts for General Science & Ability Paper

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Hi there, you've done well. Know that acquiring knowledge is one thing and reproducing it in paper according to what's asked is another. There are a few things I would like to highlight.

1. A 5 marks part requires at least 2 and at max 3 sides of a paper. Know that there can be two or three parts of a question and their marks are divided accordingly. So address all of them in a just manner.

2. Focus on time management. You get 35 minutes to solve one question and about 8 minutes per 5 mark part. Manage your time accordingly.

3. You need to understand that your paper is supposed to look more scientific than theoretical. So, add flowcharts and diagrams where required.

4. Your handwriting and neatness can be really impactful. Avoid cutting and overwriting.

5. Focus on your spellings and your grammar.

Here, in GSA there's no deduction in marks but your expression will definitely create an impact.

6. In ability portion, give explanation for analytical ability question in words. You need to understand that a 5 mark part requires all steps written and explained.

Good luck for CSS 2025. You're gonna rock in sha Allah. :)



multiplying 3.14 with 1728

$$V = \frac{4}{3} \times 5425$$

$$V = \frac{21700}{3}$$

$$V = 7233 \text{ cm}^3$$

6A

Determine  $k$  if the arithmetic mean of 9, 8, 10,  $k$ , 12 is 15.

Formula of mean =

$$\frac{\text{sum of total numbers}}{\text{total numbers}}$$

$$= \frac{9 + 8 + 10 + k + 12}{5} = 15 \text{ (according to statement)}$$

$$= \frac{39 + k}{5} = 15$$

$$= 39 + k = 3$$

$$k = 39 - 3$$

$$k = 36$$

6B

A mixture contains sugar solution and coloured water in the ratio

4:3. If 10 liters of colored water

is added to the mixture, the ratio

becomes 4:5. Find initial quantity of sugar solution in the given mixture.

let assume initial quantities as  $x$

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sugar ratio in the water = 4

colored water ratio = 3

ratio of mixture =  $\frac{4}{3}$

if 10 liters of colored water is added  
to the mixture then it becomes,

4

3+10

new ratio =

5

So  $\frac{4x}{3x+10} = \frac{4}{5}$

$$4x \times 5 = 4(3x+10)$$

$$4x \times 5 = 12x + 40$$

$$20x = 12x + 40$$

$$20x - 12x = 40$$

$$8x = 40$$

$$x = \frac{40}{8}$$

$$x = 5$$

Question No 7 (d)

Jamie's dad is 4 times older than

Jamie. In 14 years time, Jamie's

dad will be twice the age of Jamie.

What is the sum of Jamie's age now  
and Jamie's dad now?



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Assume Jim's age as  $x$

Assume Jim's dad's age as  $4x$

After 14 years their ages will be  
 $x + 14$  and  $4x + 14$

In 14 years Jim's dad's age will be  
twice the age of Jim. So it means

$$4x + 14 = 2(x + 14)$$

$$4x + 14 = 2x + 28$$

$$4x - 2x = 28 - 14$$

$$2x = 14$$

$$x = \frac{14}{2} = 7$$

$$x = 7$$

→ Age of Jim

Now dad's age

$$4x$$

putting value of  $x$

$$4(7) = 28$$

$$28 + 7 = 35 \quad (\text{ages of Jim and his dad combined})$$

Question 7(a)

If 20% of  $x = y$ , what is value of  $y\%$  of 20 in terms of  $x$

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(2)

20% of  $x = y$  means

$$\frac{20}{100} \times x = y$$

$$\frac{20x}{100} = y$$

$$\frac{20x}{100} = y$$

$$\boxed{\frac{x}{5} = y}$$

now y% of 20 means

$$y\% = \frac{x}{5} \times 20$$

$$y\% = \frac{x}{5} \times \frac{1}{100} \times 20$$

$$\frac{x}{25} \times \cancel{20}$$

$$\boxed{y\% = \frac{x}{25}} \quad \text{Answer}$$

Question No 7 (b)



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Given data:

$$P + Q = 5050$$

$$Q + R = 6250$$

$$P + R = 5200$$

To find:

value of  $P = ?$

Solution:

Average of  $P + Q =$

$$\frac{P + Q}{2} = 5050$$

$$P + Q = 5050 \times 2 = 10100$$

$$\boxed{P + Q = 10100} \quad \text{--- (1)}$$

Average of  $Q + R =$

$$\frac{Q + R}{2} = 6250$$

$$Q + R = 6250 \times 2 = 12500$$

$$\boxed{Q + R = 12500} \quad \text{--- (2)}$$

Average of  $P + R =$

$$\frac{P + R}{2} = 5200$$

$$P + R = 5200 \times 2$$

$$\boxed{P + R = 10400} \quad \text{--- (3)}$$

Now adding 1 + 2 + 3 equation

$$P + Q + Q + R + P + R = 10100 + 12500 + 10400$$



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$$2P + 2Q + 2R = 33000$$

taking 2 common

$$2(P + Q + R) = 33000$$

$$P + Q + R = 16500$$

$$P + Q + R = 16500 \quad (1)$$

now put value of  $P + Q$  in eq 4

$$10100 + R = 16500$$

$$R = 16500 - 10100$$

$$R = 6400$$

now  $P + R = 10400$  so to find  $P$

$$P = 10400 - R$$

$$P = 10400 - 6400$$

$$P = 4000 \quad \text{value of } P$$

Question No 7(c)

Given Data:

Times coins are tossed = 500

Times 2 heads occur = 105

Times 1 head occur = 275

Times no head occurs = 120

To find:

probability of each event to occur

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Formula of probability =

$$\frac{\text{no of times event occurs}}{\text{total no of times}}$$

So,

$$\begin{aligned} \text{Probability of head to occur 2 times} \\ = \frac{105}{500} \quad \boxed{= 0.21} \end{aligned}$$

$$\begin{aligned} \text{Probability of one head to occur} = \\ \frac{275}{500} \quad \boxed{0.55} \end{aligned}$$

$$\begin{aligned} \text{Probability of no head to occur} = \\ \frac{120}{500} \quad \boxed{0.24} \end{aligned}$$