

Q Aptitude + Logical Reasoning

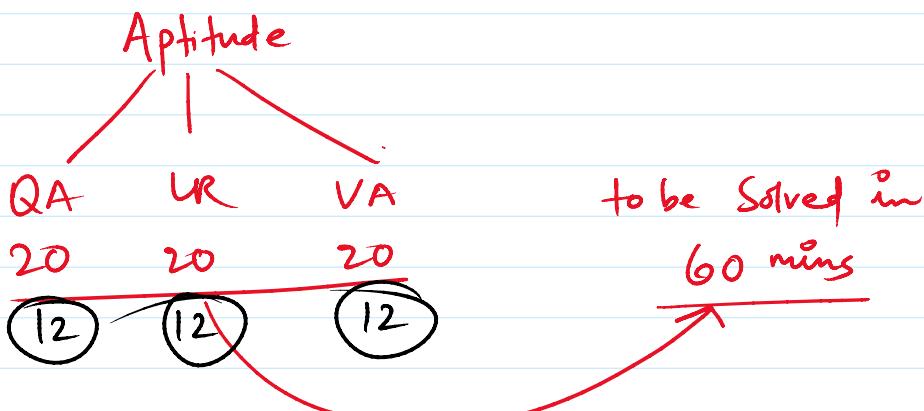
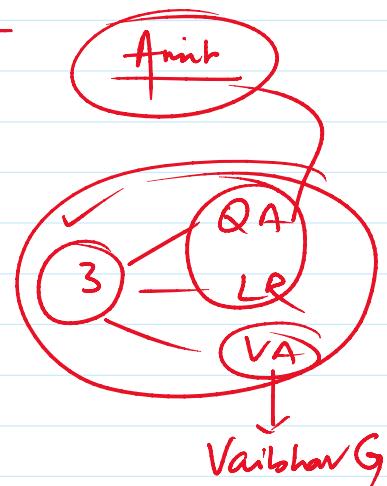
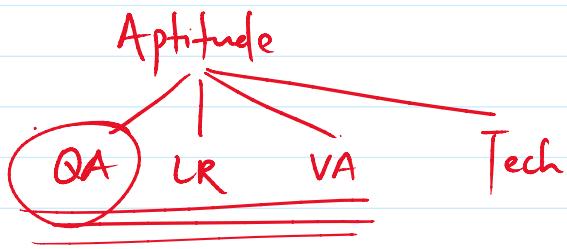
QA / Maths

Xth & below

LR

Olympiad

Final



60%.
36 Questions ✓

36 — 3600 Secs

1 Q — 100 Secs

20 Questions

Easy → 40 Secs

Moderate → 60 Secs - 70 Secs

Difficult →

150 Secs - 600 Secs
900 Secs

Aptitude :

1. Accuracy

2. Time Management

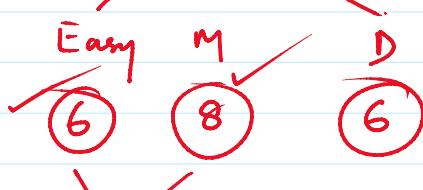
3. Marking

100% — 36 Questions

80% — 45 Questions

60% — 60 Questions

20 Questions (QA/LR/VA)



$$\begin{matrix} 7 & 7 \\ 8 & 6 \end{matrix}$$

$$\begin{matrix} 1. & \times \\ 2. & \times \\ 3. & \times \end{matrix}$$

Mixed.

12 Questions

Questions — Tricks.

12 | 12 | 12

Easy → ✓ 1. — VA / LR / QA.

START.

Topic

Quicker Calculation.

Add Subtract Multiply Divide.

Fraction
Integer $\frac{P}{Q}$

$$4 \frac{3}{5} + 7 \frac{2}{5} + 8 \frac{4}{5} = ?$$

$$\frac{P}{Q} \quad P < Q$$

$$4 + 7 + 8 = 19$$

$$+ \\ 1 \frac{4}{5}$$

$$\left[\frac{A}{B} + \frac{C}{D} \right]$$

$$\frac{3}{5} + \frac{2}{5} + \frac{4}{5} = \frac{9}{5}$$

$$5) \underline{9}(1 \frac{4}{5}$$

$$\frac{AD+BC}{BD}$$

$$77 \frac{7}{9}$$

$$20 \frac{4}{5}$$

$$.9) \underline{77}(8 \frac{72}{5}$$

$$8 \frac{5}{9}$$

8 Integer

$$\frac{5}{9} = \text{Fraction}$$

$$\begin{array}{c}
 \text{Diagram showing the decomposition of mixed numbers:} \\
 +4 + \frac{3}{5} \quad +7 \frac{2}{5} \quad -8 \frac{4}{5} \\
 \text{and} \\
 3 \frac{1}{5} \quad -8 \quad -\frac{4}{5}
 \end{array}$$

$$4 + 7 - 8 = 3$$

$$\begin{array}{r}
 \frac{3+2-4}{5} \\
 \text{or} \\
 3 \frac{1}{5}
 \end{array}$$

$$4 \frac{7}{8} + 5 \frac{5}{8} - 9 \frac{3}{8} =$$

$$\cancel{4+5-9} = 0$$

$$\frac{7+5-3}{8} =$$

$$\frac{9}{8} =$$

$$\frac{9}{8}$$

$$3 \frac{1}{5}$$

$$4 \frac{7}{8} - 5 \frac{5}{8} + 9 \frac{3}{8}$$

$$\begin{array}{r}
 8) \frac{9}{8} \\
 \hline
 1
 \end{array}$$

$$8 \frac{5}{8}$$

$$-4 \frac{7}{8} + 5 \frac{5}{8} + 9 \frac{3}{8}$$

$$\frac{15}{8} = 1 \frac{7}{8}$$

$$10 \frac{1}{8}$$

$$-4 \frac{7}{8} - 5 \frac{5}{8} + 9 \frac{3}{8} = -4 \frac{7}{8} - 5 \frac{5}{8} - 9 \frac{3}{8}$$

$$-9 \frac{12}{8} + 9 \frac{3}{8}$$

$$-19 \frac{7}{8}$$

$$-9 + 9 - \frac{9}{8} - 1 \frac{1}{8}$$

$$4 \frac{7}{8} - 5 \frac{3}{5} + 4 \frac{6}{7}$$

$$\frac{49+48}{56}$$

$$7 \frac{1}{8} - 5 \frac{1}{5} + 4 \frac{1}{7}$$

$$\begin{array}{r} \underline{17+78} \\ 56 \end{array}$$

$$\boxed{4 - 5 + 4} + \frac{7}{8} - \frac{3}{5} + \frac{6}{7}$$

$$\frac{97}{56} - \frac{3}{5}$$

$$\begin{pmatrix} 100 & -3 \end{pmatrix} 5$$

$$\begin{array}{r} 485 - 168 \\ \hline 320 \end{array}$$

$$\begin{array}{r} 3 \\ \times 4 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 317 \\ \hline 280 \end{array} \quad | \quad \begin{array}{r} 37 \\ \hline 280 \end{array}$$

$$9 \frac{3}{8} + 7 \frac{3}{11} + 4 \frac{2}{5}$$

$$9 + 7 + 4 = 20$$

$$\frac{3}{8} + \frac{3}{11} + \frac{2}{5}$$

$$\frac{33+24}{88} + \frac{2}{5}$$

$$\frac{57}{88} + \frac{2}{5} = \frac{285 + 176}{440}$$

$$\frac{461}{446}$$

$$\begin{array}{r} 21 \\ \underline{\quad} \\ 440 \end{array}$$

$$2 \frac{3}{5} + 3 \frac{4}{6} + 7 \frac{2}{3} - 8 \frac{4}{6}$$

$$\underline{2+3+7-8} = 4.$$

$$\frac{5}{15}$$

$$\frac{3}{5} + \frac{4}{6} + \frac{2}{3} - \frac{4}{5}$$

$$6 \overline{)14}$$

$$\frac{9+10}{15} = \frac{19}{15} \quad 15) \underline{19} ($$

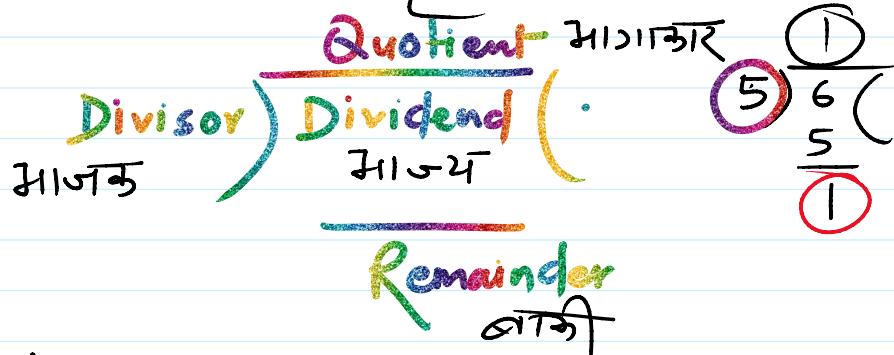
26 | 09 | 26

$$\frac{A}{B} + \frac{C}{B} = \frac{A+C}{B}$$

$$\int \frac{4}{\pi} + \frac{2}{\pi} = \frac{4+2}{\pi} = \frac{6}{\pi} = 1$$

$$\frac{A}{B} + \frac{C}{B} = \frac{A+C}{B}$$

$$\left[\frac{4}{5} + \frac{2}{5} = \frac{4+2}{5} = \frac{6}{5} = 1\frac{1}{5} \right]$$



$$\frac{A}{B} + \frac{C}{D} = \frac{A \times D + B \times C}{B \times D}$$

$$\left[\frac{2}{5} + \frac{3}{4} = \frac{8+15}{20} = \frac{23}{20} \right]$$

$$= 1\frac{3}{20}$$

$$\frac{A}{B} - \frac{C}{B} = \frac{A-C}{B}$$

$$\frac{4}{7} - \frac{2}{8} = \frac{32-14}{56} = \frac{18}{56}$$

$$\frac{A}{B} - \frac{C}{D} = \frac{AD-BC}{BD}$$

$$\frac{9}{28} \checkmark$$

$$A \frac{P}{Q} + B \frac{R}{S}$$

$$3\frac{2}{3} + 4\frac{3}{4}$$

$$A+B$$

$$\frac{P}{Q} + \frac{R}{S}$$

$$3+4=7$$

$$\frac{2}{3} + \frac{3}{4} = \frac{8+9}{12}$$

$$\frac{11}{3} + \frac{19}{4}$$

$$7+1 = 8\frac{5}{12}$$

$$\frac{17}{12} = 1\frac{5}{12}$$

$$\underline{44+57} - \underline{101}$$

$$- 5$$

$$\frac{44+57}{12} = \frac{101}{12}$$

12) 101 (8

$8\frac{5}{12}$

$$7\frac{3}{4} - 5\frac{2}{3}$$

$$7 - 5 = 2$$

$$\frac{3}{4} - \frac{2}{3} = \frac{9-8}{12} = \frac{1}{12}$$

$2\frac{1}{12}$

$$4\frac{3}{4} + 11\frac{7}{8} - 9\frac{5}{6}$$

$$\left(\frac{3}{4} + \frac{7}{8}\right) - \frac{5}{6}$$

$$4 + 11 - 9 = 6$$

$6\frac{19}{24}$

$$\frac{6+7}{8} \quad \frac{13}{8} - \frac{5}{6}$$

$$\frac{78-40}{48}$$

$\frac{38}{48} \quad \frac{19}{24}$

$$7\frac{3}{5} + 9\frac{4}{8} - 5\frac{1}{2}$$

$$7 + 9 - 5 = 11$$

$$\frac{3}{5} + \frac{4}{8}$$

$11\frac{3}{5}$

$$\frac{44}{40} \quad \frac{11}{10} - \frac{1}{2}$$

$$\frac{22-10}{20} = \frac{12}{20} \quad \frac{4}{10} \quad \frac{3}{5}$$

$$17\frac{7}{8} - 19\frac{5}{9} + 13\frac{3}{8}$$

$$17 + 13 - 19 = 11$$

$$\frac{7}{8} + \frac{3}{8} = \frac{10}{8} - \frac{5}{9}$$

$$\frac{90-40}{72} = \underline{\underline{\frac{50}{72}}}$$

$$\frac{11}{72} = \frac{25}{36}$$

Multiply

$$\begin{array}{r} 21 \\ \times 12 \\ \hline 252 \end{array}$$

$$\begin{array}{r} 1 - 9 \\ \hline 21 \\ 12 \\ \hline 252 \end{array}$$

$$\begin{array}{r} 98 \\ 76 \\ \hline 7448 \end{array}$$

Vedic Mathematics

$$\begin{array}{r} 21 \\ 12 \\ \hline 252 \end{array}$$

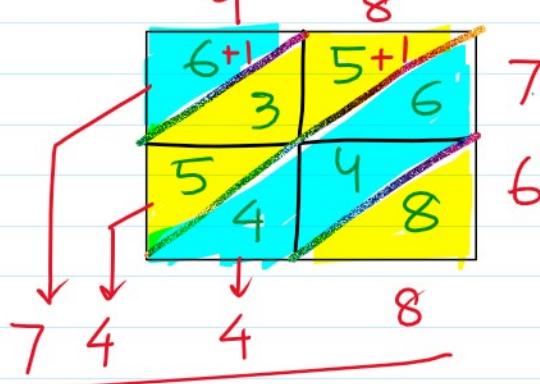
~~11~~

$$\begin{array}{r} 50+8 \\ 50+6 \end{array}$$

$$\begin{array}{r} 98 \\ 76 \end{array}$$

$$63 \quad | \quad 54 \quad | \quad 48$$

$$+ \quad 56 \quad + \quad 48$$



$$\begin{array}{r} A \\ C \\ \times \\ D \end{array}$$

$$\begin{array}{r} 7448 \\ 8 \\ \hline 7 \end{array}$$

$$\begin{array}{r} AC \quad | \quad AD \\ + \quad BC \quad | \quad BD \end{array}$$

- 1) $48 \times 34 = 1632$
- 2) $72 \times 27 = 1944$
- 3) $49 \times 17 = 833$
- 4) $53 \times 24 = 1272$

$$\begin{array}{r} 48 \\ 34 \\ \hline 1632 \end{array}$$

$$\begin{array}{r} 72 \\ 27 \\ \hline 1944 \end{array}$$

$$\begin{array}{r} 49 \\ 17 \\ \hline 833 \end{array}$$

$$\begin{array}{r} 53 \\ 24 \\ \hline 1272 \end{array}$$

$$\begin{array}{r} 48 \\ 16 \end{array}$$

$$\begin{array}{r} \text{4) } \\ \text{5) } \\ \end{array} \dots \dots \dots$$

$$53 \times 24 = 1272$$

$$16 \times 48 = 768$$

$$\frac{17}{833}$$

$$\frac{18}{16}$$

$$\frac{768}{768}$$

$$\begin{array}{r} \text{6) } \\ \text{7) } \\ \text{8) } \\ \text{9) } \\ \text{10) } \\ \end{array}$$

$$49 \times 49 = 2401$$

$$53 \times 53 = 2809$$

$$46 \times 46 = 2116$$

$$97 \times 97 = 9409$$

$$98 \times 98 = 9604$$

$$\begin{array}{r} 4 \uparrow 9 \\ \downarrow \quad \downarrow \\ 1681 \\ \underline{-} \quad 72 \\ 2401 \end{array}$$

$$\begin{array}{r} 5 \uparrow 3 \\ \downarrow \quad \downarrow \\ 2509 \\ \underline{-} \quad 30 \\ 2809 \end{array}$$

$$\begin{array}{r} 12 \uparrow 9 \\ \downarrow \quad \downarrow \\ 144 \quad 16 \\ 96 \\ \hline 15376 \end{array}$$

$$\begin{array}{r} 9 \uparrow 8 \\ 8164 \\ 144 \\ \hline 9609 \end{array}$$

$$\begin{array}{r} 25 \uparrow 7 \\ \downarrow \\ 62549 \\ 350 \\ \hline 66049 \end{array}$$

$$(175)$$

$$\begin{array}{r} 4 \uparrow 6 \\ \downarrow \\ 1636 \\ 48 \\ \hline 2116 \end{array}$$

$$\begin{array}{r} 9 \uparrow 7 \\ | \\ 8149 \\ 126 \\ \hline 9409 \end{array}$$

$$\begin{array}{r} 9 \uparrow 7^2 \\ (90+7)^2 \\ 8100 + 49 \\ 8149 \\ 1260 \\ \hline 9409 \end{array}$$

$$\underline{\underline{3 \times 3}} / \underline{\underline{3 \times 2}}$$

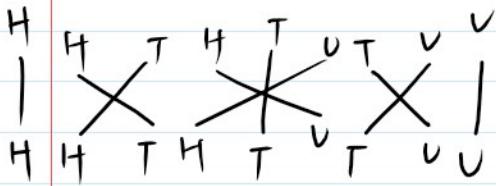
$$\begin{array}{r} A \mid B \\ \downarrow \\ A^2 \quad B^2 \\ \hline 2AB \end{array}$$

$$\underline{(A+B)^2 = A^2 + B^2 + 2AB}$$

$$90 \times 7 \times 2 = 1260$$

$$\begin{array}{r} 123 \\ 456 \end{array}$$

$$\underline{3 \times 3} / \underline{3 \times 2}$$



$$\begin{array}{r} 123 \\ 456 \\ \hline \end{array}$$

A B C
P Q R

AP	AQ	AR	BR	CR
+ BP	+ CP	+ QC		
				BQ

$$175 \times 216$$

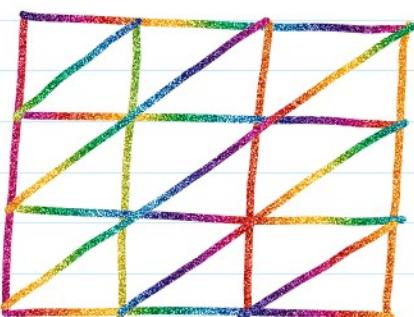
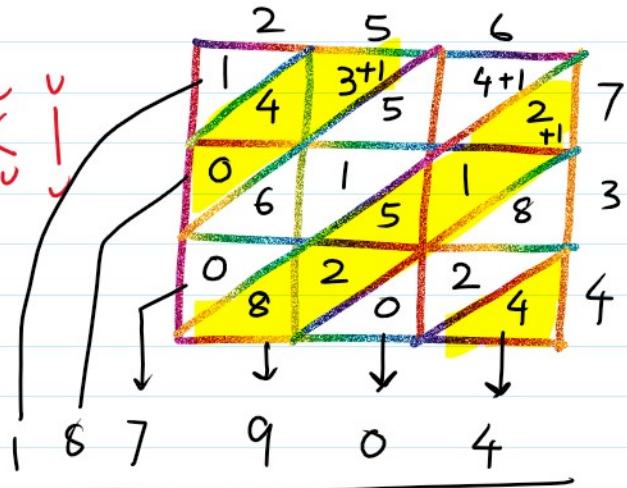
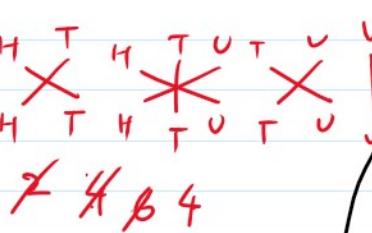
$$\begin{array}{r} 123 \\ 456 \\ \hline 56088 \\ \hline \end{array}$$

$$\begin{array}{r} 175 \\ 216 \\ \hline 37800 \end{array}$$

382

1

$$\begin{array}{r} 256 \\ \times 734 \\ \hline 187904 \end{array}$$



- 1) $765 \times 432 = 330480$
- 2) $875 \times 273 = 238875$
- 3) $074 \times 576 = 561024$
- 4) $812 \times 217 = 176204$
- 5) $953 \times 785 = 748105$

3×2

A 3x2 grid of numbers:

7	9
4	5
2	4

1	8
4	6
9	3

7	2
1	1

Diagonal lines are drawn through the following sets of cells:

- Top-left to bottom-right: (7, 9), (4, 5), (2, 4), (1, 8), (4, 6), (9, 3), (7, 2)
- Top-right to bottom-left: (9, 3), (4, 6), (1, 8), (2, 4), (5, 4), (7, 9)
- Bottom-left to top-right: (4, 9), (6, 3), (2, 1), (1, 1)

Below the grid, the numbers 5, 3, 1, 3, 1 are written horizontally.

$$\begin{array}{r}
 793 \\
 \times 67 \\
 \hline
 53131
 \end{array}$$

~~28~~ 11

$$\begin{array}{r}
 & 9 \swarrow 7 \\
 1 & \\
 \hline
 81 & 49 \\
 12 & 6x \\
 \hline
 9409
 \end{array}$$

63 double it \rightarrow 126

197

$$133 \rightarrow 266$$

$$\begin{array}{r} 36149 \\ 2660 \\ \hline 38809 \end{array}$$

$$\begin{array}{r} 44181 \\ - 378 \\ \hline 47961 \end{array}$$

$$\begin{array}{r} 260149 \\ \underline{-714} \\ \hline 267289 \end{array}$$

$$117^2 \rightarrow 13689$$

$$219^2 \rightarrow 47961$$

$$517^2 \rightarrow 267289$$

$$437 \xrightarrow{2} 184949$$

602

$$\begin{array}{r} 986149 \\ 1386 \\ \hline 994009 \end{array}$$

$$\underline{997} \rightarrow 994009$$

190969

Cubing of nos. (CI)

$$\begin{array}{r}
 1 - 1 \\
 2 - 8 \\
 3 - 27 \\
 4 - 64 \\
 5 - 125
 \end{array}$$

6	—	216
7	—	343
8	—	512
9	—	729
10	—	1000

11 — 1331
12 — 1728
13 — 2197
14 — 2744
15 — 3375

$$\begin{array}{r} 26 \\ \times 31 \\ \hline 8000 \\ - 9261 \\ \hline 8000 \end{array}$$

Division

$$197) \overline{218.93} \quad (\underline{\underline{111.132}})$$

(+3) \downarrow
 $200) \overline{218.93} \quad (\underline{109.45})$

$$21) \overline{547} \quad (\underline{\underline{26.047}})$$

$$0 - 4 = 0$$

$$5 - 9 = .10$$

$$\begin{array}{r} 42 \\ 127 \\ \hline 126 \\ \hline 100 \\ 84 \\ \hline 160 \end{array}$$

$$26.047$$

$$44.5 \approx 45$$

$$44.4 \approx 44$$

$$24) \overline{556} \quad (\underline{\underline{27.3}})$$

$$\begin{array}{r} 4 \\ 15 \\ \hline 14 \end{array}$$

$$2379) \overline{847593} \quad (Q, \underline{\underline{356.281}})$$

$$2499) \overline{847666} \quad (\underline{\underline{353.16}})$$

$$\begin{array}{r} 72 \\ 127 \\ \hline 120 \\ 76 \\ 72 \\ \hline 40 \\ 24 \\ \hline 160 \end{array}$$

$$18) \underline{90} (5$$

$$26) \underline{96} (4.5$$

Divisor Dividend Quotient
 211024 211024 211024

Remainder
 0708

$$21) \underline{168} (8$$

$$26) \underline{168} (8.4$$

Less none

$$99^2 = 9801$$

$$9801$$

$$25^2 = 625$$

$$26^2 - 24^2 = 100$$

$$27^2 - 23^2 = 200.$$

$$28^2 - 22^2 = 300$$

$$29^2 - 21^2 = 400$$

$$30^2 - 20^2 = 500.$$

$$49^2 - 49^2 = 2900$$

$$50^2 - 0^2 = 2500$$

$$51^2 - (-1)^2 = 2600$$

AVERAGE

What is Average? (Mean Value of a set of Numbers.)

$$\text{Avg} = \frac{\text{Sum of all observations}}{\text{Total no. of Observations.}}$$

$\text{Avg} = \frac{\text{sum of all observations}}{\text{Total no. of observations.}}$

12, 13, 17, 18, 20

$$\text{Avg} = \frac{12 + 13 + 17 + 18 + 20}{5} = \frac{80}{5} \quad 16$$

(12) 16 (20)

* Average always lies between smallest and largest observation

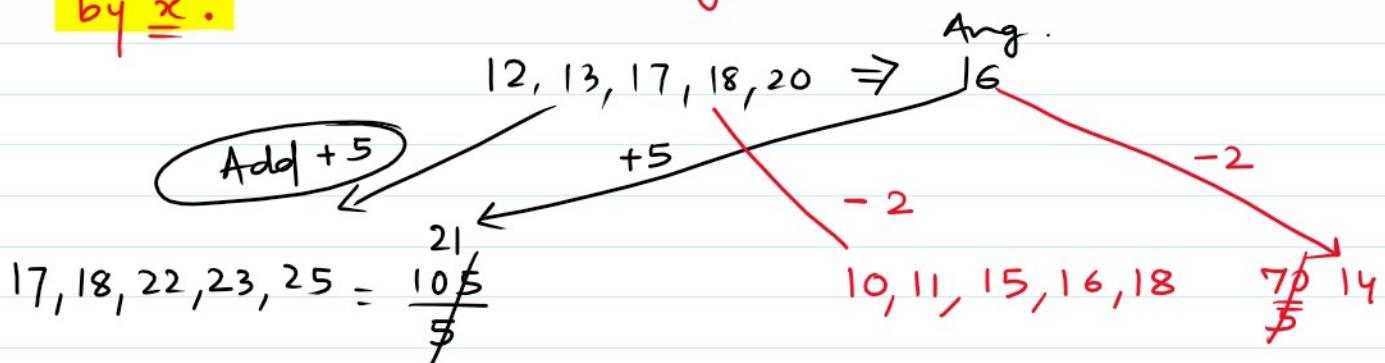
$$16, 16, 16, 16, 16 = \frac{80}{5} \quad 16$$

Smallest observation \leq Average \leq largest observation

$$12 < 16 < 20 \\ 16 = 16 = 16$$

1. Average is increased or decreased by $\pm x$. If

Each of observation is being increased or decreased by $\pm x$.



2. Average is multiplied or divided by $\pm x$, if each observation is being multiplied or divided by $\pm x$.



$$\begin{array}{ccccccccc} & \times 2 & & & \times 2 & & & & \div 4 \\ & 24, 26, 34, 36 & 40 & & 160 & 32 & & 3, 3.25, 4.25, 4.5, 5 & 26 \\ & \cancel{\$} & & & \cancel{\$} & & & \cancel{\$} & \cancel{\$} \\ & 48, 52, 68, 72 & 80 & & 320 & 64 & & 4 & 4 \end{array}$$

A Bats man

10, 17, 23, 29, 41, 50, 0, 100, 99, 01.

Assumed Average = 20

$$\begin{array}{r} \textcircled{20}) \quad -10 \quad -10 + 3 + 9 + 21 + 30 - 20 + 80 + 70 - 10 \\ \underline{+ 170} \\ \hline 10 \end{array}$$

Observation 20 - 40

$$\begin{array}{r} 1025 \\ \times 40 \\ \hline 40 \end{array}$$

~~$\frac{11.9}{10}$~~

1, 3, 5, 7, 8, 10, 15, 12, 25, 33

~~-6 -4 -2 0 × 3 8 ≠ 18 26~~

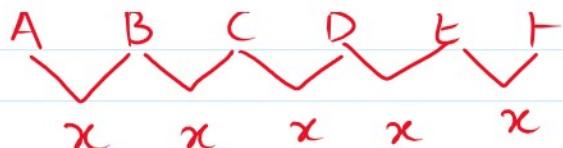
~~$\frac{49}{10}$~~ 4.9

What is a set of continuous numbers?

A B C D E F

naturais set

1, 2, 3, 4, 5, 6 . . .

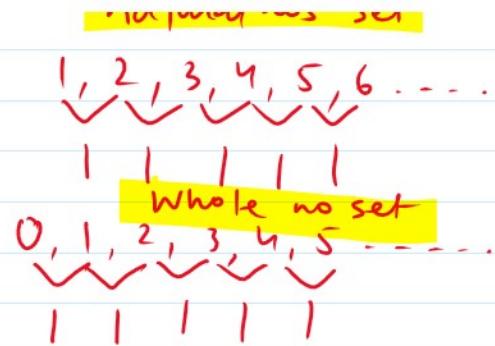


Odd no. set

$$\begin{matrix} 1 \\ \sqrt{ } \\ 3 \\ \sqrt{ } \\ 5 \\ \sqrt{ } \\ 7 \\ \sqrt{ } \\ 9 \end{matrix}, \dots$$

Even no. set

$$\begin{matrix} 2 \\ \sqrt{ } \\ 4 \\ \sqrt{ } \\ 6 \\ \sqrt{ } \\ 8 \\ \sqrt{ } \\ 10 \end{matrix}, \dots$$



A multiple of any no.

$$\begin{matrix} 7 \\ \sqrt{ } \\ 14 \\ \sqrt{ } \\ 21 \\ \sqrt{ } \\ 28 \\ \sqrt{ } \\ 35 \\ \sqrt{ } \\ 42 \end{matrix}, \dots$$

7, 14, 21, 28, 35, 42, 49.

$$\text{Avg} = \frac{7+14+21+28+35+42+49}{7} = 28$$

$$\text{Avg} = \frac{F+L}{2} = \frac{7+49}{2} = \frac{56}{2} = \underline{\underline{28}}$$

Avg = Middle no (observation)

find Avg of numbers from 201 — 999

$$\frac{201+999}{2} = \frac{1200}{2} = \underline{\underline{600}}$$

1. Find the average of 1, 2, 3,50?

$$\frac{1+50}{2} = \frac{51}{2} = \underline{\underline{25.5}}$$

2. Find the average of all even numbers from 1-100

$$\frac{2+100}{2} = \frac{102}{2} = \underline{\underline{51}}$$

7 + 98 = 105

1-100

2 3

3. Find the average of all odd numbers from 1-100? $\underline{50}$

$$\frac{2+98}{2} = \frac{100}{2} = 50$$
$$\frac{1+99}{2} = \frac{100}{2} = 50$$

4. Find the average of first 6 multiples of 8? $\underline{28}$

$$8, 16, 24, 32, 40, 48$$

5. Find the average of first 9 multiples of 7?

$$\frac{8+48}{2} = \frac{56}{2} = 28$$

$$\frac{\underline{7}+\underline{63}}{2} = \frac{70}{2} = 35$$

6. Find the average of all the multiples of 7 from 1-100?

$$\leftarrow \frac{7+98}{2} = \frac{105}{2} = 52.5$$

7. Find the average of all the multiples of 7 from 1-1000?

$$\frac{7+994}{2} = \frac{1001}{2} = 500.5$$

8. If the average of first 6 multiples of a number is 28 then find the number? $\underline{8}$

$$28 = \frac{x+6x}{2} \Rightarrow 56 = 7x$$

9. If the average of first 8 multiples of a number is 54 then find the number? $\underline{12}$

$$(x, 2x, 3x, 4x, 5x, 6x)$$

$$9x = 54 \times 2$$

$$\frac{x+8x}{2} = 54$$

10.

10. If the average of first 6 multiples of a number is 31.5 then find the number? $\underline{9}$

$$\frac{x+6x}{2} = 31.5$$

$$7x = 63 \quad \underline{9}$$

11. If the average of 5 consecutive natural numbers is 37 then find the highest number? $\underline{39}$

$$x, x+1, x+2, x+3, x+4$$
$$35 \quad 36 \quad 37 \quad 38 \quad \underline{39}$$

12. If the average of 7 consecutive natural numbers is 52 then find the product of first &

$$x, x+1, x+2, x+3, x+4, x+5, x+6$$

numbers is 52 then find the product of first & last?

$$49 \times 55 = \underline{2695}$$

$x, x+1, x+2, x+3, x+4, x+5, x+6$
 ↓
 49 50 51 52 53 54 55

13. If the average of 6 consecutive natural no. is 23.5, find the first number? $x, x+1, x+2, x+3, x+4, x+5$

14. If the average of 4 consecutive even no. is 25 then find the last number? 28

15. If the average of 5 consecutive odd numbers is 37 then find the highest number? 41

$$\begin{array}{cccccc} x & + & x+2 & & x+4 & x+6 & x+8 \\ & & & \downarrow & & & \\ 33 & & 35 & & 37 & 39 & 41 \end{array}$$

$$\frac{x+x+5}{2} = 23.5$$

$$2x+5 = 47$$

$$2x = 42 \quad 21$$

$$x, x+2, x+4, x+6$$

$$\frac{x+x+6}{2} = 25$$

$$2x+6 = 50$$

$$2x = 44 \quad 22$$

1. The average age of 11 players in the team is 25 years; if the age of coach is included the average becomes 27 years find the age of coach?

$$\begin{array}{c} p+c = 324 \\ \cancel{\text{Player}} = \underline{275} \\ \hline c = \underline{\underline{49}} \text{ yrs} \end{array}$$

No	×	Avg	→	Total
old no 11		old Avg 25	→	275
new no 12		old Avg 27	→	324

COACH = New Avg + (change in Avg) × old obs.

$$27 + (+2) \times 11 = 27 + 22 = \underline{\underline{49}}$$

Age = New Avg + (change in Avg) × old obs.

$$\begin{array}{ccc} \text{No} & \text{Avg} & \\ 15 & 20 & \\ \hline & & \\ & 14 & 19 \end{array}$$

No

15 — 20
14 — 19

~~19 — 20~~

$20 + (+1) \times 14 = 34.$

$19 + (-1) \times 15 = 19 - 15 = 4$

2. The batting average of Rahul for 17 innings was 50 runs how much he should score in his next innings so that his average becomes 56?

$$\begin{array}{rcl}
 17 & - & 50 \\
 18 & - & 56
 \end{array}$$

$$\begin{aligned}
 56 + (+6 \times 17) \\
 56 + 102 = \underline{\underline{158}}
 \end{aligned}$$