Quick Revision Sheet – Important English Word Frames in Arithmetic Word Problems (Govt Exams)

1. Multiplication Indicators

- Twice / Thrice / Four times / Five times / Double / Triple / Quadruple
- Half / One-third / One-fourth / One-fifth
- Increased (or decreased) n times
- Example: Ravi's age is twice that of his son → Ravi = 2 × Son

2. Addition Indicators

- More than / Older than / Greater than / Added to / Together / Sum of / Increased by
- Example: Ram is 5 years older than Shyam → Ram = Shyam + 5

3. Subtraction Indicators

- Less than / Smaller than / Difference between / Reduced by / Decreased by / Short by / Younger than / Below
- Example: A number is 6 less than twice another → x = 2y – 6

4. Division or Fraction Indicators

- Half of / One-third of / One-fifth of / Part of / Fraction of / Portion of / Per / Out of / Each / For every
- Example: One-fourth of a number is 6 → x/4 = 6

5. Ratio & Proportion Indicators

- Ratio of A to B / Proportion / Compared to / As much as
- Example: A's salary is to B's salary as 3 is to 4 → A/B = 3/4

6. Relationship & Condition Indicators

- Now / After / Before / Years ago / Hence / Together / Alone / Takes 2 days more than / When meet / Upstream / Downstream / Speed of current
- Example: A works twice as fast as B and takes 10 days less → A's work = 2 × B's work

7. Average or Total Indicators

- Average / Mean / Per head / Per person / Total / Altogether / Combined / Difference in average / Difference in total

- Example: Average = Sum ÷ Number of terms

8. Percent, Profit & Loss Indicators

- Percent / Percentage / Gain / Profit / Loss / Discount / More than / Less than / Equal to / Same as
- Example: He sold the article at 20% profit → SP = 120% of CP

9. Change or Comparison Indicators

- As much again / As many again / Twice as much as before / Increased by 25% / Decreased by 10%
- Example: Increased by 25% → ×(1.25)

10. Common Tricky Phrases

- Number exceeds another by 8 → $x = y + 8$
- Number is diminished by 5 → $x = x - 5$
- Sum of digits is 9 → $a + b = 9$
- Number formed by reversing digits → if $10a + b$ → reversed = $10b + a$
- Product of two consecutive numbers → $x \times (x + 1)$
- Difference between squares → $a^2 - b^2 = (a - b)(a + b)$

11. Story-Based Problem Keywords

- Ages → years ago / after / twice / older
- Boats & Streams → upstream / downstream / current / still water
- Time & Work → together / alone / faster / slower / twice as efficient
- Partnership → investment / ratio / share / period
- Profit & Loss → cost price / selling price / percent / discount
- Pipes & Cisterns → fill / empty / per minute / rate