Boat & Stream

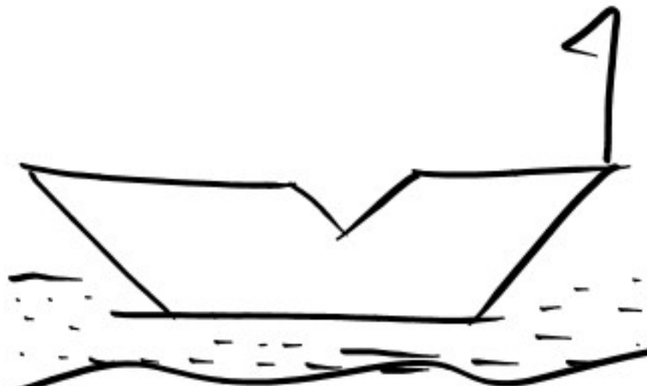
- जहाज
- प्रवाह

⟹ Still water → थांबलेले पाणी.

⟹ Flowing water → वाहते पाणी

- Downstream → प्रवाहसोबत
- Upstream → प्रवाहविरुद्ध

Still water



Speed = Speed of Boat

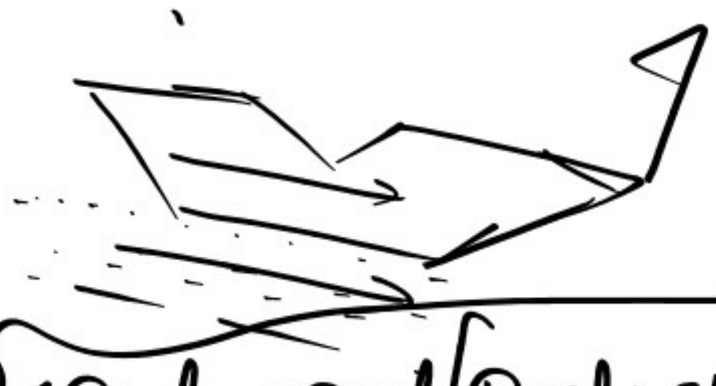
D = 100 km

T = 4 Hrs

Speed of Boat = $\frac{100}{4}$

= 25 kmph

Downstream



Speed = Speed [Boat + stream]

Boat = 10 kmph

Stream = 5 kmph

T = 4 Hrs

D = S × T = (10+5) × 4

D = 15 × 4 = 60

Upstream

Speed =

Speed [Boat - Stream]

Speed of Boat = 10

Speed stream = 3

UP = 10 - 3 = 7 kmph

T = 4 | D = 7 × 4 = 28

$\Rightarrow$ Still water → [speed] = speed of Boat

$\Rightarrow$ Downstream → [speed] = speed of [Boat + stream]

$\Rightarrow$ Upstream → [speed] = speed of [Boat − Stream]

Boat = $x = 17$

Stream = $y = 3$

Down = $x + y$

UP = $x - y$

Down = 20 kmph

UP = 14 kmph

$x + y = 20$

$x - y = 14$

$x = 17$

$y = 3$

$$\text{Boat} = \frac{\text{Down} + \text{UP}}{2}$$

$$\text{Stream} = \frac{\text{Down} - \text{UP}}{2}$$