Name of the Bundle	Advanced Bundle V2	Subject	Aptitude
Topic	Boats and Streams	Last updated on	11 March 2025

Downstream & Upstream:

➔ In water, the direction along the stream is called downstream. And, the direction against the stream is called upstream.

➔ If the speed of a boat in still water is *u* km/hr and the speed of the stream is *v* km/hr, then:

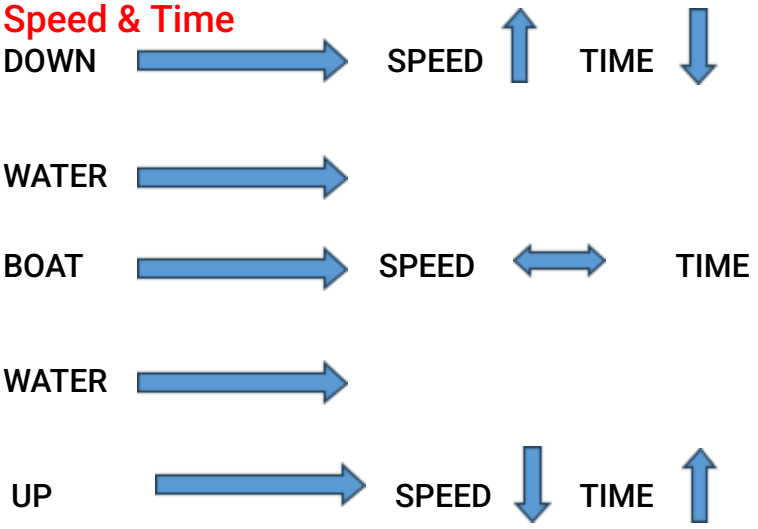
- Downstream Speed = $(u + v)$ km/hr.
- Upstream Speed = $(u - v)$ km/hr.

➔ If the downstream speed is *a* km/hr and the upstream speed is *b* km/hr, then:

- Speed in still water,u = (a + b) km/hr.
- Rate of stream,v =(a - b) km/hr.

CONCEPTS

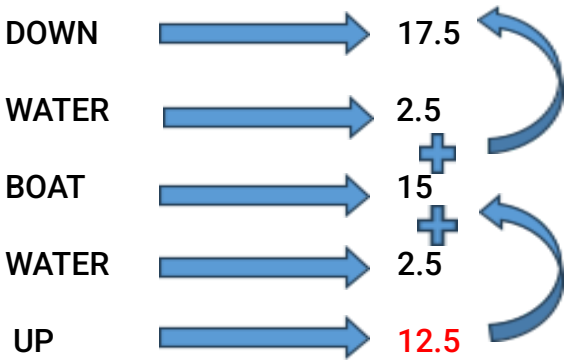
Speed & Time



Name of the Bundle	Advanced Bundle V2	Subject	Aptitude
Topic	Boats and Streams	Last updated on	11 March 2025

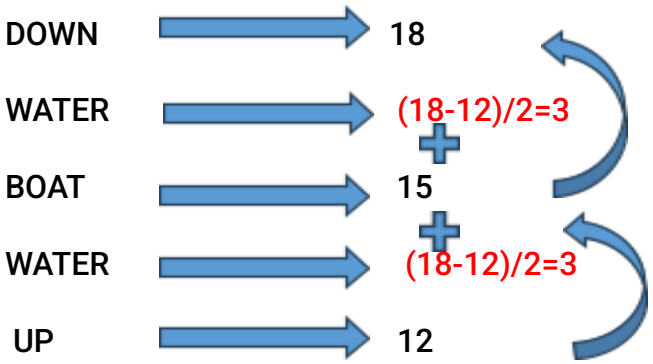
1. A man's speed with the current is 15 km/hr and the speed of the current is 2.5 km/hr. The man's speed against the current is:
   a. 8.5 km/hr
   b. 9 km/hr
   c. 10 km/hr
   d. 12.5 km/hr

Ans: c. 10km/hr
Explanation:



2. A man's speed with the downstream is 18 km/hr and the speed of the upstream is 12 km/hr. The speed of the current is:
   a. 1 km/hr
   b. 5 km/hr
   c. 3 km/hr
   d. 2 km/hr

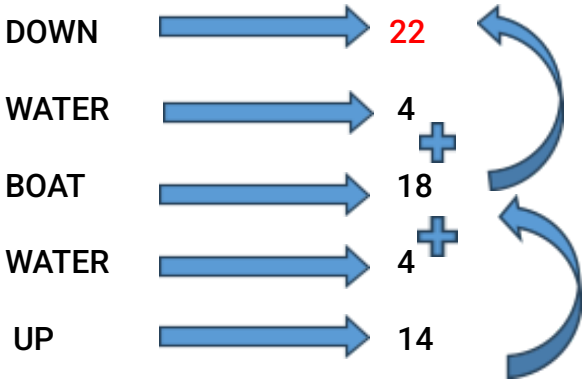
Ans: c. 3 km/hr
Explanation:



Name of the Bundle	Advanced Bundle V2	Subject	Aptitude
Topic	Boats and Streams	Last updated on	11 March 2025

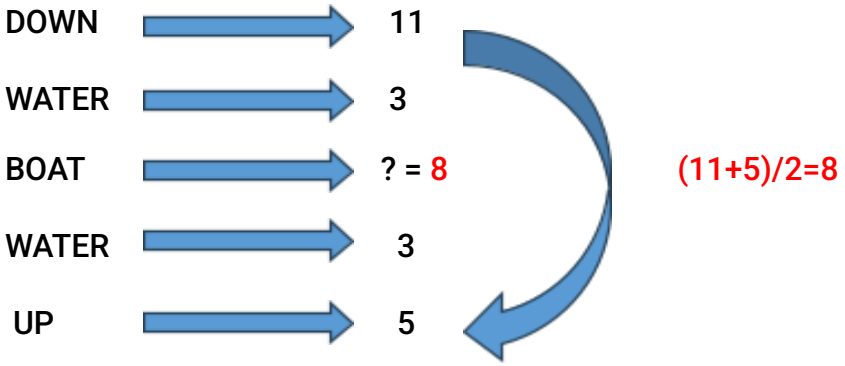
3. A man's speed with the current is 18 km/hr and the speed of the current is 4 km/hr. The man's speed along the current is:
    a. 20 km/hr
    b. 18 km/hr
    c. 14 km/hr
    d. 22 km/hr

Ans: d. 22km/hr
Explanation:



4. In one hour, a boat goes 11 km/hr along the stream and 5 km/hr against the stream. The speed of the boat in still water (in km/hr) is:
    a. 3 km/hr
    b. 5 km/hr
    c. 8 km/hr
    d. 9 km/hr

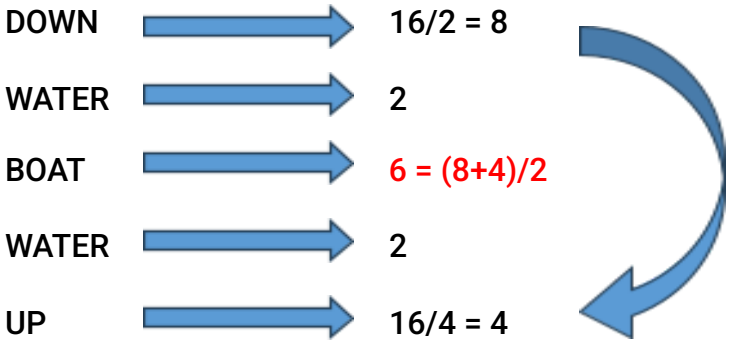
Ans: c. 8 km/hr
Explanation:



Name of the Bundle	Advanced Bundle V2	Subject	Aptitude
Topic	Boats and Streams	Last updated on	11 March 2025

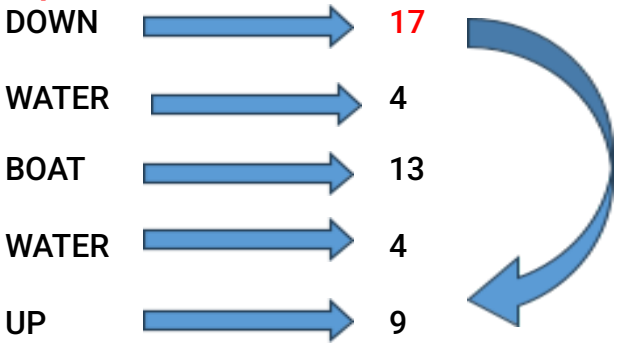
5. A boat running downstream covers a distance of 16 km in 2 hours, while for covering the same distance upstream, it takes 4 hours. What is the speed of the boat in still water?
    a. 4 km/hr
    b. 6 km/hr
    c. 8 km/hr
    d. 9 km/hr

Ans: b. 6 km/hr
Explanation:



6. A boat can travel with a speed of 13 km/hr in still water. If the speed of the stream is 4 km/hr, find the time taken by the boat to go 68 km downstream.
    a. 2 hours
    b. 3 hours
    c. 4 hours
    d. 5 hours

Ans: c. 4 hours
Explanation:

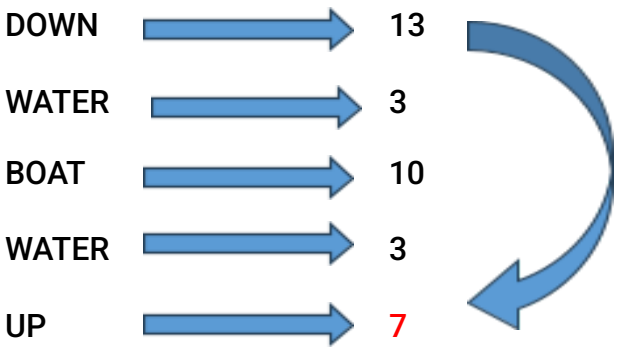


km	hr
17	1
68	4

Name of the Bundle	Advanced Bundle V2	Subject	Aptitude
Topic	Boats and Streams	Last updated on	11 March 2025

7. A boat can travel with a speed of 10 km/hr in still water. If the speed of the stream is 3 km/hr, find the time taken by the boat to go 63 km upstream.
    a. 9 hours
    b. 8 hours
    c. 6 hours
    d. 7 hours

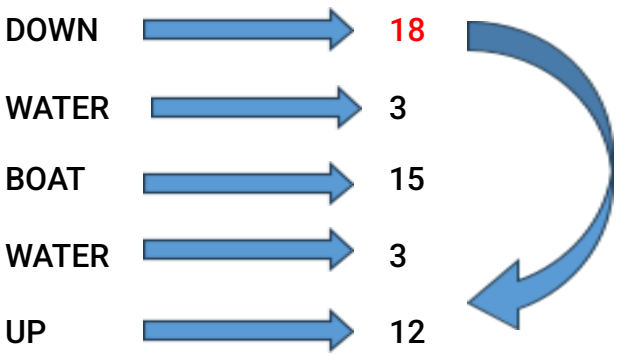
Ans: a. 9 hours
Explanation:



km	hr
7	1
63	9

8. The speed of a boat in still water is 15 km/hr and the rate of current is 3 km/hr. The distance traveled downstream in 12 minutes is:
    a. 1.2 km
    b. 1.8 km
    c. 2.4 km
    d. 3.6 km

Ans: d. 3.6 km
Explanation:



Ratio Concept

min	hr
60	18
12	3.6

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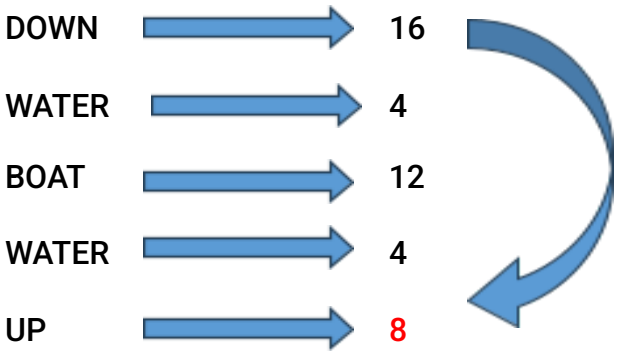
9. The speed of a boat in still water is 12 km/hr and the rate of current is 4 km/hr. The distance traveled upstream in 15 minutes is:
    a. 2 km
    b. 3 km
    c. 4 km
    d. 5 km

Ans: a. 2 km
Explanation:

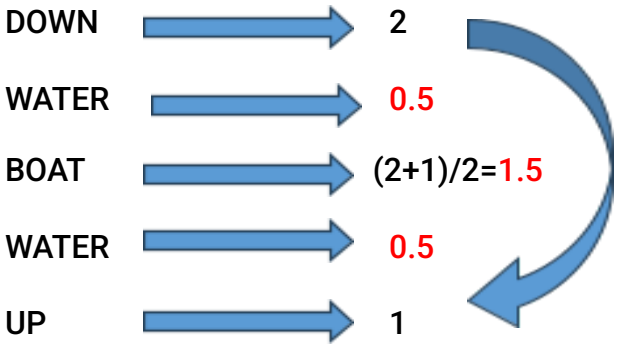


Ratio Concept

min	hr
60	8
15	2

10. A man takes twice as long to row a distance against the stream as to row the same distance in favor of the stream. The ratio of the speed of the boat (in still water) and the stream is:
    a. 2: 1
    b. 3: 1
    c. 3: 2
    d. 4: 3

Ans: b. 3: 1
Explanation:



BOAT	:	WATER
1.5	:	.5
3	:	1

Name of the Bundle	Advanced Bundle V2	**Subject**	Aptitude
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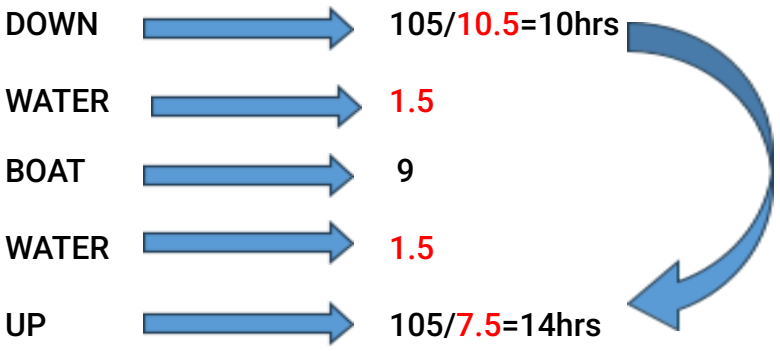
11. Speed of a boat in still water is 9 kmph and the speed of the stream is 1.5 kmph. A man rows to a place at a distance of 105 km and comes back to the starting point. The total time taken by him is:
    a. 16 hours
    b. 18 hours
    c. 20 hours
    d. 24 hours

Ans: d. 24 hours
Explanation:



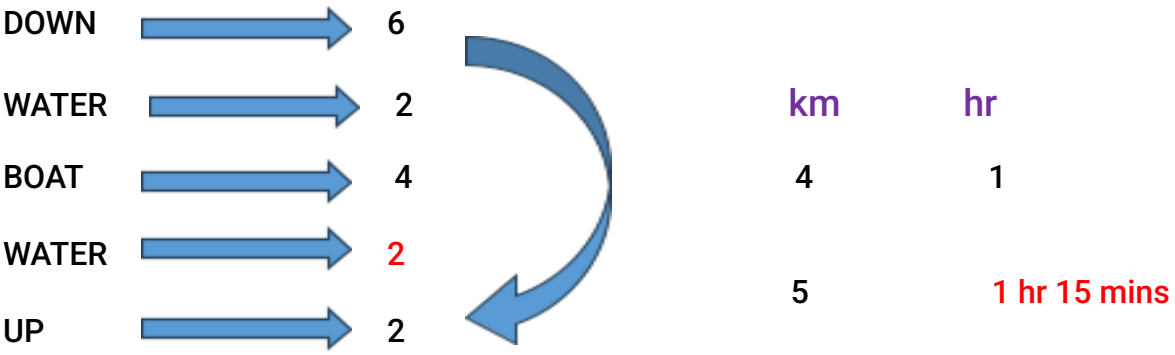
Total Time = 10+14 => 24hrs

Name of the Bundle	Advanced Bundle V2	Subject	Aptitude
Topic	Boats and Streams	Last updated on	11 March 2025

12. A boatman goes 2 km against the stream's current in 1 hour and 1 km along the current in 10 minutes. How long will it take to go 5 km in stationary water?
    a. 40 minutes
    b. 1 hour
    c. 1 hour 15 minutes
    d. 1 hour 30 minutes

Ans: c. 1 hour 15 minutes
Explanation:

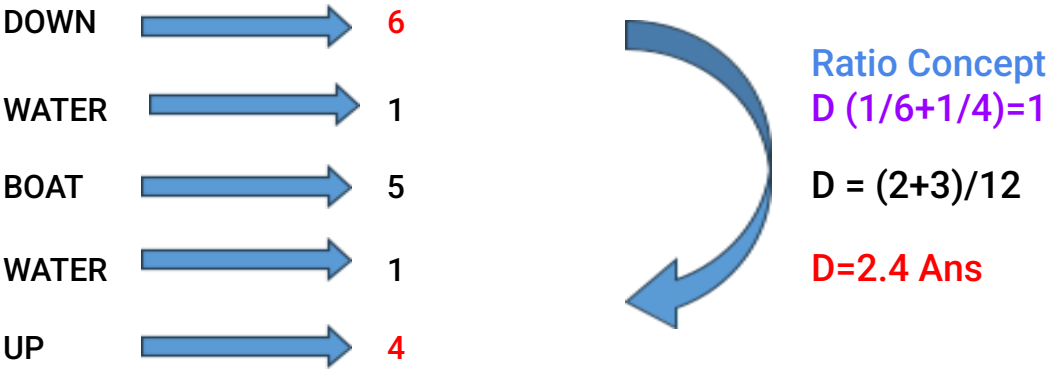
1 km along the current in 10 minutes.



Name of the Bundle	Advanced Bundle V2	Subject	Aptitude
Topic	Boats and Streams	Last updated on	11 March 2025

13. A man can row at 5 kmph in still water. If the velocity of the current is 1 kmph and it takes him 1 hour to row to a place and come back, how far is the place?
    a. 2.4 km
    b. 2.5 km
    c. 3 km
    d. 3.6 km

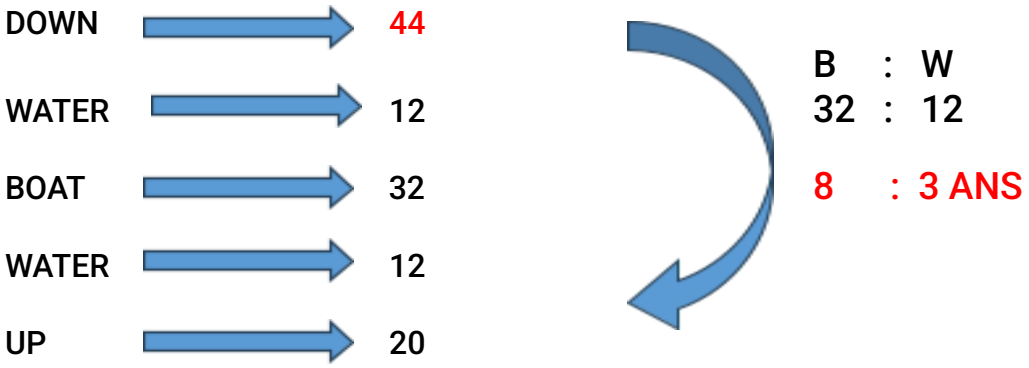
Ans: a. 2.4 km
Explanation:



Name of the Bundle	Advanced Bundle V2	Subject	Aptitude
Topic	Boats and Streams	Last updated on	11 March 2025

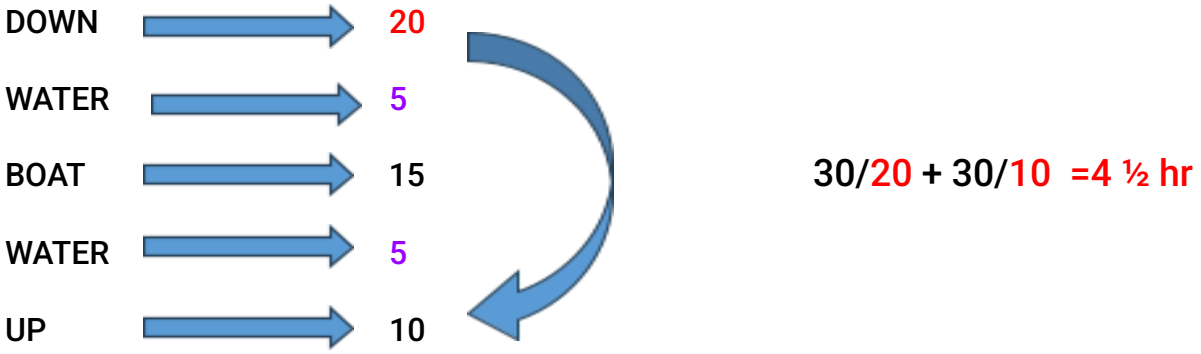
14. A boat running upstream takes 8 hours 48 minutes to cover a certain distance, while it takes 4 hours to cover the same distance running downstream. What is the ratio between the speed of the boat and the speed of the water current respectively?
    a. 2: 1
    b. 3: 2
    c. 8 : 3
    d. 5: 4

Ans: c. 8: 3
Explanation:



15. A motorboat, whose speed is 15 km/hr in still water, goes 30 km downstream and comes back in a total of 4 hours 30 minutes. The speed of the stream (in km/hr) is:
    a. 4
    b. 5
    c. 6
    d. 10

Ans: b. 5
Explanation:



Name of the Bundle	Advanced Bundle V2	Subject	Aptitude
Topic	Boats and Streams	Last updated on	11 March 2025

16. A man covers 32 km downstream and 36 km upstream in 7 hours. He covers 40 km downstream and 48 km upstream in 9 hours. What is the speed of the man in still water?
    a. 6 km/h
    b. 10 km/h
    c. 8 km/h
    d. 2 km/h

Ans: b. 10 km/h
Explanation:

32 / D + 36 / U = 7 -----(1)

40 / D + 48 / U = 9 ------(2)

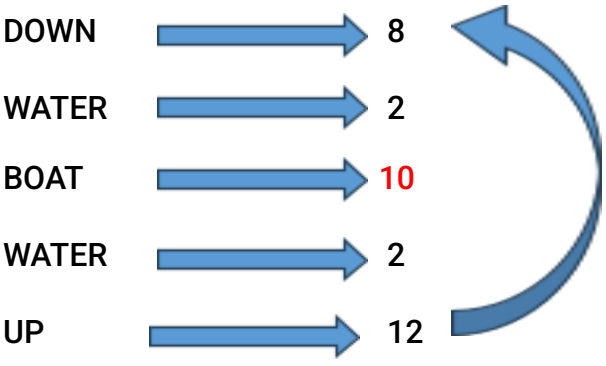
(32 / D + 36 / U) x 4 = 10 x 4

(40 / D + 48 / U) x 3 = 7 x 3

8/D = 1 D=8 hr

36/U = 3

U = 12hr



Name of the Bundle	Advanced Bundle V2	Subject	Aptitude
Topic	Boats and Streams	Last updated on	11 March 2025

17. A man can row three-quarters of a kilometre against the stream in $11\frac{1}{4}$ minutes and down the stream in $7\frac{1}{2}$ minutes. The speed (in km/hr) of the man in still water is:
    a. 2
    b. 3
    c. 4
    d. 5

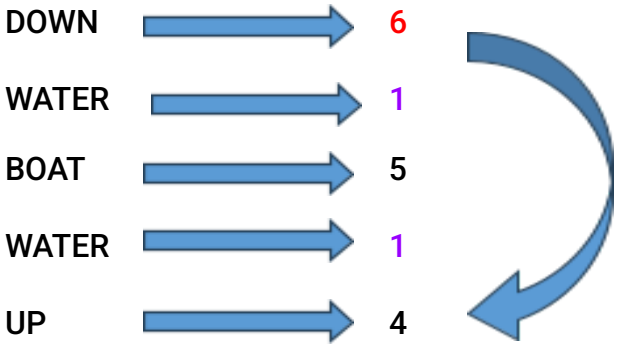
Ans: d. 5
Explanation:

U S=(3/4)km /(45/4 x 60)hr

= 3/4 x 16/3=4 km/hr

D S =(3/4)km /(15/2 x 60)hr

= 3/4 x 8=6 km/hr



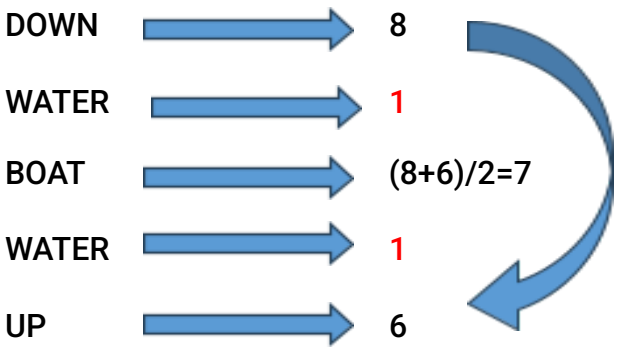
Name of the Bundle	Advanced Bundle V2	**Subject**	Aptitude
Topic	Boats and Streams	**Last updated on**	11 March 2025

18. A man rows to a place 48 km away and returns in 14 hours. He finds that he can row 4 km with the stream in the same time as 3 km against the stream. The rate of the stream is:
    a. 1 km/hr
    b. 1.5 km/hr
    c. 2 km/hr
    d. 2.5 km/hr

Ans: a.1 km/hr
Explanation:

Suppose he moves 4 km downstream in x hours. Then,
Speed DS =4/ x
Speed US = 3/ x
48 x (1/4+1/3) = 14
x=1/2

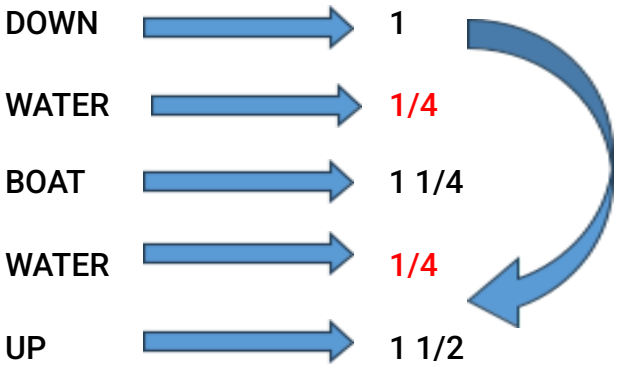
So, Speed downstream = 8 km/hr, Speed upstream = 6 km/hr.



Name of the Bundle	Advanced Bundle V2	Subject	Aptitude
Topic	Boats and Streams	Last updated on	11 March 2025

19. A boat covers a certain distance downstream in 1 hour, while it comes back in $1\frac{1}{2}$ hour. If the speed of the stream is 3 kmph, what is the speed of the boat in still water?
    a. 12 kmph
    b. 13 kmph
    c. 14 kmph
    d. 15 kmph

Ans: d. 15 kmph
Explanation:



Ratio Concept

1/4 : 1 1/4

1 : 5

3 : 15