

Course outline

How does an NPTEL online course work?

Module 1 - Overview of Electric Vehicles in India

Module 2 - Vehicle Dynamics

Module 2 and 3 - Vehicle Dynamics and EV Subsystems

Module 4 - Storage for EVs

Module 4 - Storage for EVs (contd)

Module 5 - Fundamentals of battery pack design

Module 5 and 6 - Battery Pack Design, Motors and Controllers

Lecture 46 - BMS Design of Electric Vehicle - Part 1

Lecture 47 - BMS Design of Electric Vehicle - Part 2

Lecture 48 - BMS Design of Electric Vehicle - Part 3

Lecture 49 - BMS Design and Embedded System - Part 4

Lecture 50 - BMS Design and Embedded System - Part 5

Lecture 51 - Cell Testing and Characterization - Part 1

Lecture 52 - Cell Testing and Characterization - Part 2

Lecture 53 - EV Motors and Controllers - Vehicle Dynamics - Part 1

Lecture 54 - EV Motors and Controllers - Vehicle Dynamics - Part 2

Lecture 55 - EV Motors and Controllers - Understanding Flow - Part 1

Lecture 56 - EV Motors and Controllers - Understanding Flow - Part 2

Lecture 57 - Power and Efficiency

Quiz: Week 7: Assignment 1

Quiz: Week 7: Assignment 2

Quiz: Week 7: Assignment 3

Week 7 - Lecture notes

Week 7 - Feedback form: Electric Vehicles and Renewable Energy

Week 7: Solutions

Module 6 - EV Motors and Controllers

Module 7&8 - Battery Charging and Swapping, Analytics

Module 9: Renewable Energy - Introduction

Module 10: Renewable Energy - Solar and Wind Energy

Module 11: Renewable Energy

Live Session

DOWNLOAD VIDEOS

Week 7: Assignment 2

The due date for submitting this assignment has passed.

Due on 2021-09-15, 23:59 IST.

As per our records you have not submitted this assignment.

1) In which of the following drive modes is air drag relatively insignificant?

1 point

- Short steep climb
 overtaking
 long uphill climb
 None of the above

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 Short steep climb

2) If the velocity of a vehicle is tripled, what happens to the air drag force?

1 point

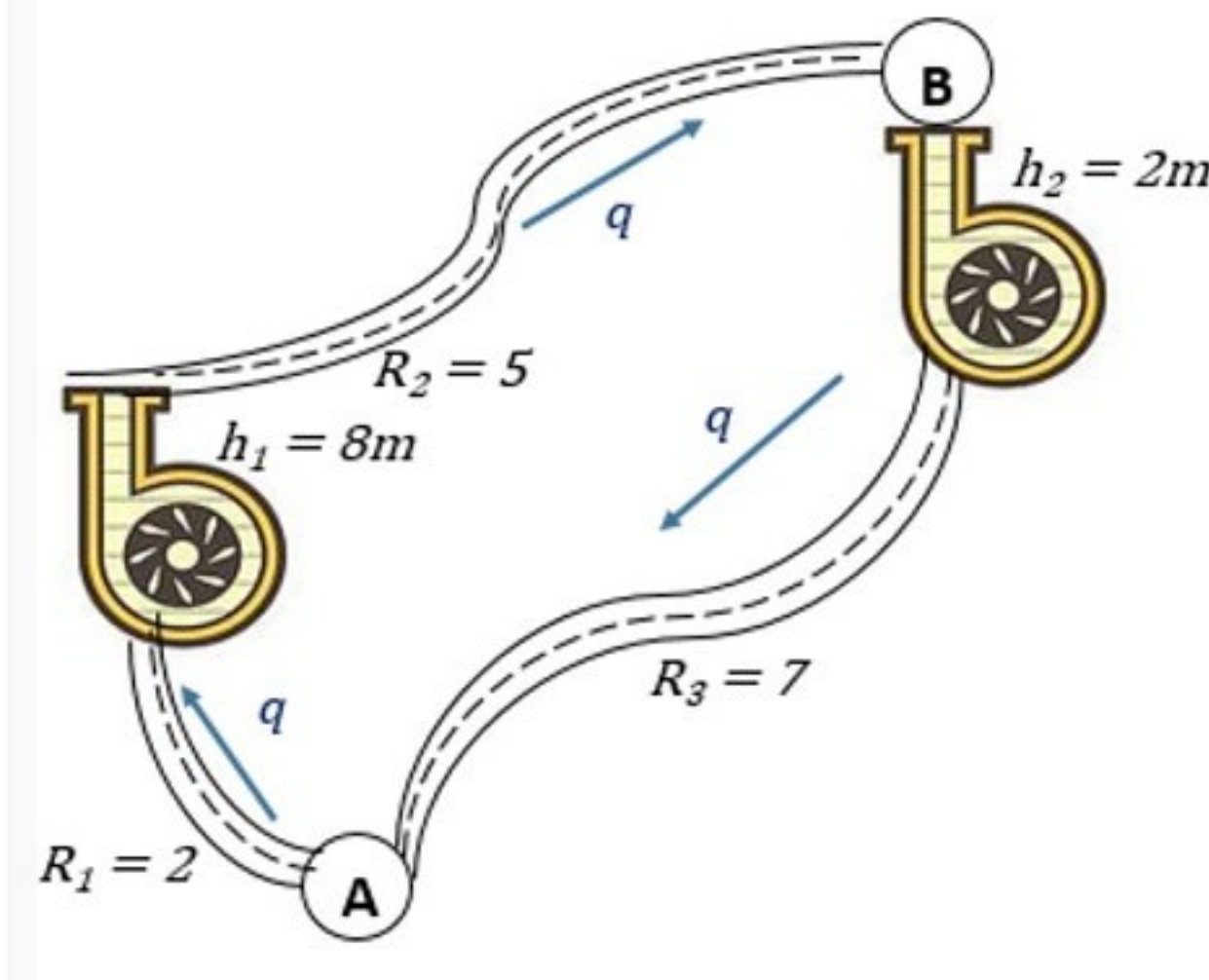
- Becomes 27 times
 Becomes double
 Becomes 9 times
 Becomes 3 times

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 Becomes 9 times

3) In the series circuit below, the head-drop (in m) across the pipes R1, R2 AND R3 is respectively

1 point



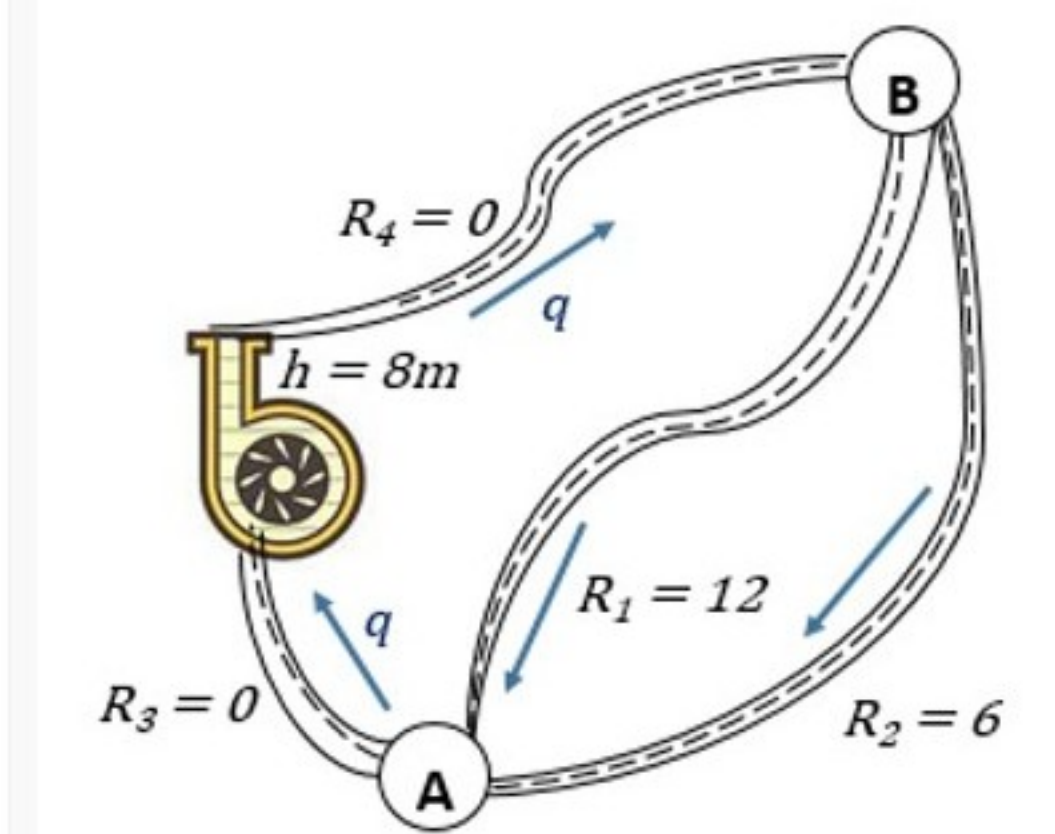
- 3/7, 18/7, 3
 6/7, 15/7, 3
 6/7, 19/7, 17/7
 None of the above

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 6/7, 15/7, 3

4) In the parallel circuit below, the head-drop (in m) across R1 and R2 respectively is

1 point

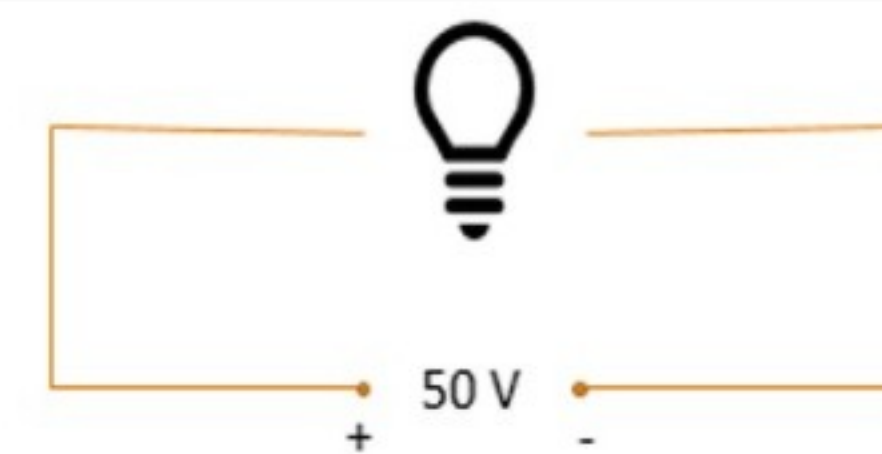


- 4 and 4
 6 and 2
 2 and 6
 8 and 8

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 8 and 8

A bulb with the label "50V, 100W" is used to illuminate a room.



5) If 'n' such bulbs are connected in series, the brightness of each bulb is greater by a factor

1 point

- n
 1/n
 n²
 1/n²

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 1/n²

6) The brightness of the room is greater by a factor

1 point

- n
 1/n
 n²
 1/n²

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 1/n

7) An electrician strings up a serial light arrangement with 500 bulbs in each series, with four such strings in parallel. One defective bulb goes out. What will happen then?

1 point

- The entire arrangement is plunged into darkness



5) If 'n' such bulbs are connected in series, the brightness of each bulb is greater by a factor

1 point

- n
 1/n
 n²
 1/n²

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 1/n²

6) The brightness of the room is greater by a factor

1 point