

Bab / Chapter 1 : Pengenalan kepada Fizik / Introduction to Physics

1. Which quantity is a derived quantity?

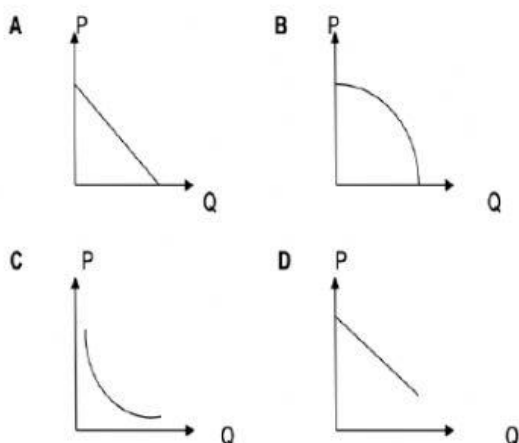
Kuantiti manakah adalah kuantiti terbitan?

- A Force / Daya
- B Amount of substance / Kuantiti bahan
- C Current / Arus
- D Luminous Intensity / Keamatan cahaya

3. Antara yang berikut, yang manakah kuantiti asas?
Which of the following is a base quantity?

- A Berat
Weight
- B Isipadu
Volume
- C Kuantiti haba
Amount of heat
- D Keamatan berluminesiti
Luminous intensity

4. Graf manakah menunjukkan P berkadar songsang dengan Q?
Which graph shows P is inversely proportional to Q?



2. Diagram 1 shows Richard stands at O. He walks towards A, then move towards B and stops at B.

Rajah 1 menunjukkan Richard berdiri pada titik O. Dia berjalan ke arah A, kemudian bergerak ke arah B dan berhenti di B.

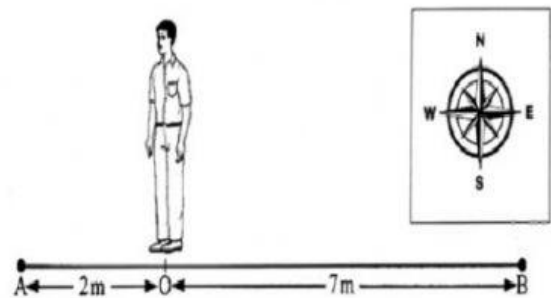


Diagram 1
Rajah 1

What is the displacement of Richard?

Apakah sesaran Richard?

- A 9 m towards west
9 m ke barat
- B 7 m towards east
7 m ke timur
- C 5 m towards east
5 m ke timur
- D 2 m towards west
2 m ke barat

5. Apakah kuantiti-kuantiti asas dalam pecutan?
What are the base quantities in acceleration?

- A. Laju dan masa
Speed and time
- B Panjang dan masa
Length and time
- C. Panjang dan laju
Length and speed
- D. Laju dan halaju
Speed and velocity

6. Satu zarah bergerak dari titik P ke titik Q dalam masa, T. Antara pernyataan berikut yang manakah benar tentang halaju purata dan pecutan purata bagi zarah tersebut.

A particle moves from a point P to a point Q in a time T. Which one of the following correctly defines both the average velocity and average acceleration of the particle?

	Halaju purata <i>Average velocity</i>	Pecutan purata <i>Average acceleration</i>
A.	Sesaran Q dari P $\frac{\text{Displacement of Q from P}}{T}$	Perubahan laju dari P ke Q $\frac{\text{Change in speed from P to Q}}{T}$
B.	Jarak Q dari P $\frac{\text{Distance of Q from P}}{T}$	Perubahan halaju dari P ke Q $\frac{\text{Change in velocity from P to Q}}{T}$
C.	Jarak di antara Q dan P $\frac{\text{Distance between Q and P}}{T}$	Perubahan laju dari P ke Q $\frac{\text{Change in speed from P to Q}}{T}$
D.	Sesaran di antara Q dan P $\frac{\text{Displacement between Q and P}}{T}$	Perubahan halaju dari P ke Q $\frac{\text{Change in velocity from P to Q}}{T}$

7. Which of the following quantity is not basic quantity?

- A Length
B Time
C Electric current
D Quantity of charge

8. Diagram 1 below shows a graph.

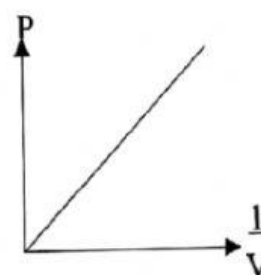


Diagram 1

What is the relationship of the graph shown in Diagram 1?

- A P is decreasing linearly with V
B P is directly proportional to V
C When V increases, P increases
D P is inversely proportional to V

9. Antara berikut yang manakah simbol bagi unit asas SI?
Which of the following is a symbol of a base SI unit?

- A m
B g
C N
D °C

10. Antara kuantiti fizik yang berikut, manakah dipadankan dengan unit SI yang betul?
Which of the following physical quantities matched with the correct SI unit?

	Physical quantity <i>Kuantiti fizik</i>	SI unit <i>Unit SI</i>
A	Time <i>Masa</i>	Minute <i>Minit</i>
B	Mass <i>Jisim</i>	Kilogram <i>Kilogram</i>
C	Length <i>Panjang</i>	Kilometer <i>Kilometer</i>
D	Force <i>Daya</i>	Joule <i>Joule</i>

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Antara berikut yang manakah kesemuanya kuantiti terbitan?
Which of the following are all derived quantities?

- A Daya, masa, panjang
Force, time, length
- B Momentum, daya, halaju
Momentum, force, velocity
- C Panjang, halaju, suhu
Length, velocity, temperature
- D Masa, suhu, arus elektrik
Time, temperature, electric current

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Suhu dan tenaga boleh dikelaskan sebagai
Temperature and energy can be classified as

- | | |
|---|--|
| A kuantiti asas
base quantities | C kuantiti skalar
scalar quantities |
| B kuantiti terbitan
derived quantities | D kuantiti vektor
vector quantities |

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Rajah 2 menunjukkan situasi di taman permainan.
Diagram 2 shows situation in a playground.



Rajah / Diagram 2

Apakah pembolehubah dimanipulasikan dan pembolehubah bergerak balas yang sesuai?
What is the suitable manipulated variable and responding variable?

	Pembolehubah dimanipulasikan Manipulated variable	Pembolehubah bergerak balas Responding variable
A.	Jisim ladung Mass of bob	Tempoh ayunan Period of oscillation
B.	Panjang bandul Length of pendulum	Tempoh ayunan Period of oscillation
C.	Kelajuan bandul Speed of pendulum	Panjang bandul Length of pendulum
D.	Tempoh ayunan Period of oscillation	Kelajuan bandul Speed of pendulum

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Antara kuantiti fizik berikut, yang manakah **bukan** kuantiti terbitan?
Which of the following physical quantities is **not** a derived quantity?

- | | |
|--------------------------|-----------------------|
| A Frekuensi
Frequency | C Halaju
Velocity |
| B Jisim
Mass | D Tekanan
Pressure |

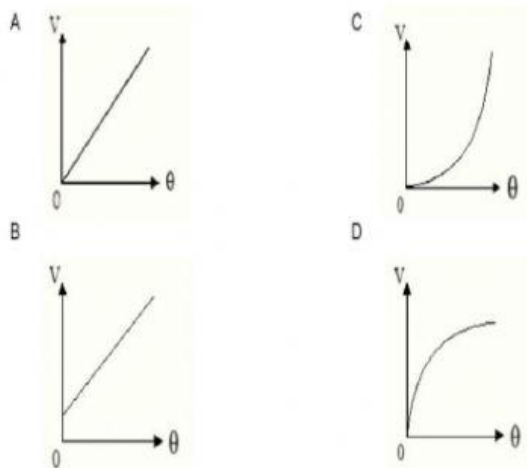
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Pasangan manakah yang terdiri daripada kuantiti terbitan sahaja?
Which pair consists of only derived quantities?

- A Jarak dan suhu
Distance and temperature
- B Jisim dan ketumpatan
Mass and density
- C Arus elektrik dan halaju
Electric current and velocity
- D Halaju dan cas
Velocity and charge

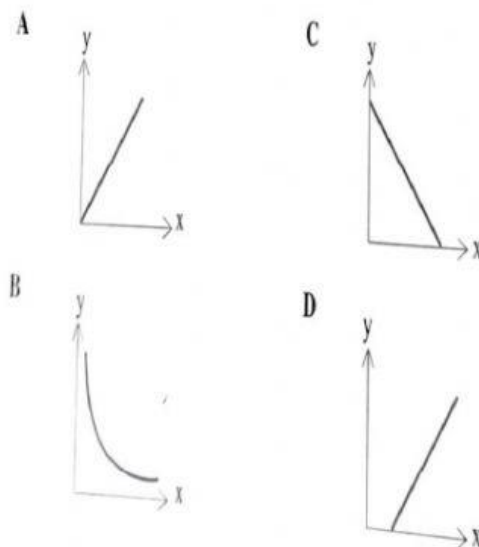
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Graf manakah menunjukkan hubungan V bertambah secara linear dengan θ ?
Which graph shows a relationship of V increasing linearly with θ ?



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Graf manakah mewakili hubungan y berkadar songsang dengan x ?
Which graph represents the relationship of y is inversely proportional to x ?



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Kuantiti manakah adalah kuantiti vektor?
Which quantity is a vector quantity?

- A Jisim
Mass
- B Tenaga
Energy
- C Tekanan
Pressure
- D Momentum
Momentum

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Antara berikut yang manakah kuantiti asas dan unit SI yang betul?
Which of the following base quantity and its SI unit is correct?

	Kuantiti asas Based quantity	Unit S.I. S.I. unit
A	Jisim Mass	g
B	Arus Current	mA
C	Masa Time	h
D	Suhu Temperature	K

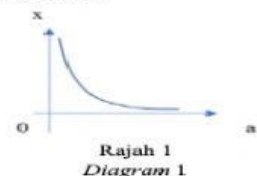
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Pasangan kuantiti manakah adalah benar?
Which pair of quantity is correct?

	Kuantiti skalar Scalar quantity	Kuantiti vektor Vector quantity
A	Mempunyai magnitud sahaja Has magnitude only	Mempunyai magnitud sahaja Has magnitude only
B	Mempunyai arah sahaja Has direction only	Mempunyai magnitud sahaja Has magnitude only
C	Mempunyai magnitud sahaja Has magnitude only	Mempunyai magnitud dan arah Has magnitude and direction
D	Mempunyai magnitud dan arah Has magnitude and direction	Mempunyai arah sahaja Has direction only

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Rajah 1 menunjukkan graf x melawan a .
Diagram 1 shows the graph of x against a .



Apakah hubungan antara x dan a ?
What is the relationship between x and a ?

- A x berkadar secara songsang kepada a .
 x is inversely proportional to a .
- B x berkurang secara linear kepada a .
 x decreases linearly to a .
- C x berkurang secara linear kepada $\frac{1}{a}$.
 x decreases linearly to $\frac{1}{a}$.
- D x berkadar secara langsung kepada $\frac{1}{a}$.
 x is directly proportional to $\frac{1}{a}$.