





PHYSICS

BOOKS - BEIITIANS

MEASUREMENT

Formative Worksheet

1. What do we need to measure physical quantities accurately?

A. Standard units

B. Standard instruments

C. Both (A) and (B)

D. None of these

Answer:

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2. Measurement has two parts they are?

A. number and unit

B. unit and number

C. direction and unit

D. direction and number

Answer:

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3. The standard used to measure a certain Physical quantity is

A. Unit

B. Scale

C. Both (1, (B)

D. None of these

Answer:



- 4. Pace or a footstep is a
 - A. MKS unit of length
 - B. CGS unit of length
 - C. FPS unit of length
 - D. Non standard unit of length

5. Statement-I: Cubit is a standard unit Statemetn II: 10 Kilometre= 1000 metre

A. Statement I is true , Statement II is true

B. Statement I is true, Statement II is false

C. Statement I is false, Statement II is true

D. Statement I is false, Statement II is false

Answer:

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6. Statement I: Micro, milli, etc., are to be used as

prefixes for metre only.

Statement II: Kilogram is a standard unit.

A. Standard I is true , Statement II is true

B. Statement I is true, Statement II is false

C. Statement I is false , Statement II is true

D. Statement I is false , Statement II is false

Answer:

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7. Basic (or) fundamental measurements are?

A. Length, Mass and Time

B. Length, Area and Time

C. Length, density and Time

D. Density, volume and Time

Answer:



8. M.K.S system is also named as?

A. Metric system

B. C.G.S system

C. British system

D. S.I. system

Answer:

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9. In decreasing magnitude which of the following is correct?

A. km, cm, m, mm

B. km, m, cm, mm

C. m, km, cm, mm

D. km, cm, mm, m

Answer:

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10. The number of rounds of a wire around a pencil are 24 and the length of the coil is 4.8cm then what is the diameter of wire?

A. 24 cm

B. 2.4 cm

C. 20 cm

 $\mathrm{D.}\,0.2\,\mathrm{cm}$

Answer:

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11. The distance between Radha's home and her school is 3250 m. Express this distance into km.

A. $32.5 \mathrm{km}$

 $\mathsf{B}.\,3.25\,\mathsf{km}$

 $\mathsf{C.}\,0.325~\mathsf{km}$

 $\mathrm{D}.\,0.0325~\mathrm{km}$

Answer:



12. The height of a person is 1.65 m. Express this value in mm.

A. $16.5 \mathrm{mm}$

B. 165 mm

C. 1650 mm

D. 16500 mm

Answer:

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13. While measuring the diameter of the ball, the inner edges of the wooden block stood at 3.4cm and 4.7cm on a scale. Calculate the diameter of the ball?

A. 1.3 cm

B. 7.7 cm

 $\mathsf{C}.\,0.13\,\mathsf{cm}$

 $\mathrm{D}.\,0.77~\mathrm{cm}$

Answer:



14. Fill in the blanks

A. 1 cm =---- mm

B. 1 dm =---- metre

C. 1 kilometre =---- metre

D. 1 metre = ----centimetre



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16. What is the area of rectangular graph paper having 6cm length and 5cm width?

A. $11cm^2$

 $\mathsf{B}.\,1cm^2$

 $C. 30 cm^2$

 $\mathsf{D.}\,60 cm^2$

Answer:

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17. The length of a school compoundis 450m and

breadth is 145m. The area of the school compound

in hectares is _____

A. 6525 hectare

B. 652.5 hectare

C. 65.25 hectare

D. 6.525 hectare





Answer:

Watch Video Solution

19. A school hall measure 20 m in length and 12 m

in breadth. Find the area of the school hall.

A. $1200m^2$

B. $120m^2$

 $C.240m^2$

 $\mathsf{D.}\,2400m^2$



20. Find the volume of cuboid of dimensions 5cm,

4cm and 3cm?

A. $60cm^3$

B. $120 cm^3$

 $\mathsf{C.}\,240 cm^3$

 $\mathsf{D.}\,480 cm^3$



21. A measuring cylinder has $75cm^3$ of water, when a stone is droped water level rises to $125cm^3$. What is the volume of stone?

A. $25cm^3$

B. $50 cm^{3}$

 $\mathsf{C.}\,75cm^3$

D. $100 cm^{3}$



22. A stone of volume $50cm^3$ lowered into $80cm^3$ of water in a measuring jar. Then what will be the new reading in measuring jar?

A. $15cm^3$

 $\mathsf{B.}\, 30 cm^3$

 $C.45cm^3$

D. $60cm^3$

Answer:

Watch Video Solution

23. The volume of a rectangular slab is $12cm^3$. The length and breadth of the slab are 3 cm and 2 cm respectively. Find its height.

A. 10 cm

B. 8 cm

C. 4 cm

D. 2 cm



24. A boy has purchased a toy, which is in the form of a cuboid. The cuboid has the following dimensions: $0.003km \times 0.03m \times 3cm$. What is volume of this cuboid?

A. $900 cm^{3}$

B. $1800 cm^3$

 $\mathsf{C.}\,2700 cm^3$

 $\mathsf{D.}\,3600 cm^3$

Answer:

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25. When a stone is lowered into a measuring cylinder the volume is 9.3 ml. The volume of the stone is 5.8 ml. Find the initial volume of water in the measuring cylinder.

A. 3.5 ml

B. 5 ml

C. 6.5 ml

D. 8.5 ml



26. Express $5cm^3$ in terms of cubic millimetres

A. $500mm^3$

B. $5000 mm^3$

 $C.50mm^3$

 $\mathsf{D}.\,0.5mm^3$

Answer:

Watch Video Solution

27. One quintal=_____ton.

A. 10

B. 100

 $\mathsf{C}.0.1$

 $D.\,0.01$

Answer:

Watch Video Solution

28. 1 metric tonne=_____milligram.

A. 10^3

 $B.\,10^{6}$

 $C. 10^{9}$

 $\mathsf{D.}\,10^{12}$

Answer:



29. 1 micro second $= 10^x$ milliseconds. Find x.

- $\mathsf{A.+1}$
- B. + 3
- $\mathsf{C}.-1$

 $\mathsf{D.}-3$

Answer: Watch Video Solution **30.** 1 kg=____tonne. A. 100 B. 1000 C. 10^{-3} D. 10^{-2}



31. A truck of weigh 4.4 tonnes. Its value in kg?

A. 4400 kg

B. 440 kg

C. 44 kg

D. 4.4 kg



32. How many seconds are equal to 6hours 8min?

A. 86400 sec

B. 43200 sec

C. 1296480 sec

D. 648240 sec

Answer:



Conceptive Worksheet

1. Pick the odd man out:

A. Length

B. Metre

C. Yard

D. Cubit

Answer:

Watch Video Solution

2. Number of fundamental physical quantities in

M.K.S system are

A. Two

B. Three

C. Seven

D. Six

Answer:



3. Cubit is a

A. MKS unit of length

B. CGS unit of length

C. FPS unit of length

D. Non standard unit of length

Answer:



4. Which of the following is the largest unit of length ?

A. Decimetre

B. Centimetre

C. Millimetre

D. Metre

Answer:

Watch Video Solution

5. F.P.S stands for

A. Foot, pound, second

B. France, Parish, Spain

C. Force, pressure, second

D. Foot, Pace, Second

Answer:



6. C.G.S stands for

A. Centimetre, gravitation, second

B. Centisecond, gram, second

C. Centimetre, gram, second

D. None of these



7. Multiples and submultiples of units.

A. Are specific numerical values

B. Are used as prefixes

C. Both (A) and (B)

D. None of these


8. Micro means

A. unit of time

B. 10,00,000

C.
$$\frac{1}{10, 00, 000}$$

D. $\frac{1}{\text{milli}}$

Answer:



9. Pick the odd man out:

A. milli

B. kilo

C. micro

D. centimetre

Answer:



10. What is the SI unit of length?

A. Metre

B. Centimetre

C. Kilometre

D. All of these

Answer:



11.4 kilometre are equal to

A. 4,00,000 metre

B. 40,000 metre

C. 4,000 metre

D. 400 metre





12.15 cm are equal to

A. 150 mm

B. 15 mm

C. 1.5 mm

D. 0.15 mm



13. Which is a correct relationship?

A. 1 m = 100 cm

B. 1 cm = 10 mm

C. 1 km = 1000 m

D. all the correct



14. 1 cm=____kilometre

A. 100

 $\mathsf{B.}\,10^5$

C. $10^{\,-\,5}$

D. 10^{-2}



15. Arrange the following lengths in their increasing magnitude:

1 metre, 1 centimetre, 1 kilometre, 1 millimetre.

A. 1 centimetre < 1 millimetre < 1 kilometre

< 1 metre

B.1 millimetre < 1 centimetre < 1 metre <

1 kilometre

C. 1 kilometre < 1 metre < 1 centimetre <

1 millimetre

D. none

Answer:





17. 1AU = ?

A. $1.496 imes 10^{11} m$

 $\text{B.}\,1.496\times10^9 cm$

C. $1.496 imes 10^8 m$

D. $1.444 imes 10^6 m$



18. The size of bacteria is generally measured n microns. The micrometer (μm) , isoften called the micron. How many micorns make up 1 kilometer?

A. 10^3

B. 10^{6}

 $C. 10^9$

 $\mathsf{D.}\,10^{12}$



19. Least count of a metre scale is?

A. 1cm

B. 0.1mm

C. 0.1cm

D. 0.01mm

Answer:

Watch Video Solution

20. Area of 1sqcm is?

A. $100mm^2$

 $\mathsf{B}.\,1000mm^2$

 $\mathsf{C}.\,10mm^2$

D. 10, $000mm^2$

Answer:

Watch Video Solution

21. How many small squares are there in 1sq.cm?

A. 1000

B. 100

C. 10

D. 1

Answer:

Watch Video Solution

22. To measure irregular areas _____ paper is used.

A. Graph paper

B. Scale

C. Using formula

D. Tape



23. The area of the land is $100m^2$ here m^2 stands for

- A. Numerical value of area
- B. Unit of area
- C. Both (A) and (B)
- D. None of these



24. $1km^2$ =

A.1 hectare

B. 10 hectares

C. 100 hectares

D. 1000 hectares

Answer:

Watch Video Solution

25.1 hectare=___

A. $1000m^2$

 $\mathsf{B.}\,10000m^2$

C. $100000m^2$

 $\mathrm{D.}\,100m^2$

Answer:

Watch Video Solution

26. The space inside a regular or irregular objects

is known as?

A. Area

B. Volume

C. Mass

D. Length

Answer:



27. The SI unit of volume is:

A. cm^3

 $\mathsf{B.}\,m^3$

 $\mathsf{C}.\,ml^3$

D. l^3

Answer:



28. 1cubic meter is?

A. $10^6 cc$

 $\mathsf{B}.\,10^4cc$

 $C. 10^3 cc$

 $\mathsf{D.}\,10^9 cc$



29. In laboratories to take specific volume of liquid

we use?

A. Pipette

B. Burette

C. Measuring jar

D. Measuring vessel



30. 1 litre = ?

A. 1000cc

B. 1000cm

C. 100ml

D. 100cm

Answer:

Watch Video Solution

31. The space occupied by a substance is

called_____

A. Area

B. Length

C. Volume

D. None of these

Answer:



32. The SI unit of volume is:

- A. Cubic centimetre
- B. Cubic millimetre
- C. Cubic metre
- D. Cubic litre

Answer:

Watch Video Solution

33. One cubic metre is equal to ____

A. $10^6 ext{ cc}$

 $\mathrm{B.}\,10^4~\mathrm{cc}$

C. 10^3 cc

 $\mathrm{D.}~10^9~\mathrm{cc}$

Answer:



34. The volume occupied by a cube whose each side is equal to 1 cm is called

A. Cubic centimetre

B. Cubic millimetre

C. Cubic metre

D. None of these

Answer:

Watch Video Solution

35. 1 mean solar day = ?

A. 365days

B. 10years

C. 24hours

D. 60minutes



36. Which of the following measurement have not correct expression in S.I unit?

A. 51 cm cloth

B. 20sec of time

C. Surface area $40 cm^2$

D. 2kg water



- **37.** 1quintal = ?
 - A. 100kg
 - B. 1000kg
 - C. 10kg
 - D. 500kg

Answer:

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38. If the Charminar superfast express staying 00 hours in Warangal, then the time is 12 hour clock is

A. 12 0' clock at night

B. 12 O' clock at noon

C. 18 O' clock at night

D. 18 0' clock at noon



39. A passenger goes to Secunderabad railway station. He asked the enquiry counter, When did Tirumala express come? The enquiry counter person replied 18 hour 15 minutes. Then the time in his 12-hour clock was_____

A. 5 hour - 45 minutes AM

B. 5 hour - 45 minutes PM

C. 6 hour - 15 minutes AM

D. 6 hour - 15 minutes PM

Vatch Video Solution

Summative Worksheet

1. Statement I: A thread is enough to measure a curved line.

Statement II: A scale is enough to measure a curved line.

A. Statement I is true, Statement II is true

B. Statement I is true, Statement II is false

C. Statement I is false, Statement II is true

D. Statement I is false, Statement II is false



2. To measure the length of a curved line, which of the following materials are needed?

A. Cotton thread

B. Measuring scale

C. Common balance

D. Watch



3. In which of the following, are indirect methods of measurement used?

A. Measuring thickness of a wire

B. Measuring thickness of a coin or plate

C. Measuring length of table

D. All



4.	Metre	scales	have	ends	to

avoid error due to _____

A. Cylindrical, Volume of the scale

B. Tapered, thickness of the scale

C. Tapered, Area of the scale

D. Cylindrical, Area of the scale

Answer:

Watch Video Solution

5. $1cm^2 =$ _____

A.
$$10^{-10} km^2$$

B. 10^{-8} hectare

 $\mathsf{C}.\,10^{-4}m^2$

D. all of these



6.
$$1m^2 = _$$

A. $10^{-6} km^2$

- B. 10^{-4} hectare
- C. 10^{-2} are

D. all of these

Answer:



7. When do we say that a bucket is bigger than a

cup?

A. When the volume of cup is greater than the

volume of bucket

B. When the volume of bucket is greater than

the volume of cup

C. When the volume of bucket is equal to the

volume of cup

D. We can't say

Answer:

Watch Video Solution

8. Pick the odd man out.

A. mega

B. kilo

C. tonne

D. hecta


9. The length of a school compoundis 450m and breadth is 145m. The area of the school compound

in hectares is _____

A. 6.525 hectares

B. 65.25 hectares

C. 0.6525 hectares

D. 652.5 hectares

Answer: A



10. If an aeroplane is scheduled to take off at 18 hours -57 minutes, then time in PM on a 12-hour clock is

A. 12 - hour - 57 minute AM

B. 12 - hour - 57 minute PM

C. 6 - hour - 57 minute AM

D. 6 - hour - 57 minute PM

Answer:

Watch Video Solution

Hots Worksheet

1. Under the spout of over flow jar, place a measuring cylinder. Gently lower a stone in the over flow jar. The stone displaces water which flows out from the spout into the measuring cylinder. If the reading on the overflow jar is 12ml, then the volume of stone is _____

A. $12 imes 10^{-5}m^3$

B. $1.2 imes 10^{-5}m^3$

C. $0.12 imes 10^{-5}m^3$

D. $0.012 imes 10^{-5}m^3$



2. One millenium is equal to how many decades?

A. 10

B. 100

C. 1000

D. 10000





Let ABCD be a centimetre graph paper. The area of

darkened surface on the graph paper is

A. $8cm^2$

 $\mathsf{B.}\,11cm^2$

 $C. 9 cm^2$

D. $10 cm^2$

Answer:

Watch Video Solution

4. If the time on a 12-hour clock is 3 hours -45 min

PM, then time on 24-hour clock is _____

A. 15 hour - 45 minutes

B. 15 hour - 12 minutes

C. 6 hour - 57 minutes

D. 12 hours

Answer:



6.1 decade=_____minutes

A. $52.56 imes10^6$

 $\text{B.}\,5.256\times10^6$

C. $525.6 imes10^6$

D. $5256 imes 10^6$



7.1 year=_____seconds

A. $315.36 imes 10^6$

 $\texttt{B.}~3.1536\times10^6$

 $\text{C.}~31.536\times10^6$

D. $3153.6 imes 10^6$



8. A syringe has a capacity of 5 ml. Its capacity in cm^3 and m^3 is respectively are

A.
$$5 imes 10^{-6}m^3, 5cm^3$$

B. $5cm^3, 5 imes 10^{-6}m^3$

C. $5 imes 10^{-3}m^3, 5cm^3$

D.
$$5cm^3, 5 imes 10^{-3}m^3$$

Answer:

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9. A water tank has a capacity of 10,000 litre. Its value in m^3 is

A. $100m^{3}$

 $\mathsf{B.}\,1000m^3$

 $\mathsf{C}.\,1m^3$

D. $10m^3$

Answer:

Vatch Video Solution

10. The water level of a measuring cylinder is 26ml. A piece of concrete having a volume of $6cm^3$ is immersed in it. The new level of water is

A. 20 ml

B. 26 ml

C. 32 ml

D. 6 ml



11. The mass of an electron is $9.11 imes 10^{-31} kg$. How

many elecrons would make 1kg?

A. $1.1 imes 10^{30}$ B. $1.1 imes 10^{31}$ C. $1.1 imes 10^{-30}$ D. $1.1 imes 10^{-31}$



12. If m_1, m_2, m_3 and m_4 are masses of four bodies 0.3 g, 0.3 kg, 0.3×10^{-6} g and 3000 g respectively. The above, in increasing order of masses, are as follows.

A. $m_1>m_2>m_3>m_4$

B. $m_4 > m_2 > m_1 > m_3$

C. $m_4 > m_1 > m_2 > m_3$

D. $m_3 > m_2 > m_4 > m_1$

Answer:

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1. Chand goes to a hospital for a health checkup. There, he is asked to stand in front of a meter scale, so that his height could be measured.



- A. 1 m and 100 cm
- B. 1 m and 11 cm
- C. 1 m and 10 cm
- D.1m and 1cm





The respective lengths of pencils I and II are

A. 4.5 mm and 3 cm

B. 4.5 cm and 3 cm

C. 4.5 mm and 3 mm

D. 4.5 cm and 3 mm



3. Which of the following tools must be used to find the tallest student in a group of four?

A. Clock

B. Thermometer

C. Measuring tape

D. Weighing balance



4. Sandeep has a wooden study table. He wants to measure the height of the table.

Which of the following tools can be used by

Sandeep to measure the height of his study table?

A. Measuring tape

B. Pan balance

C. Microscope

D. Telescope

Answer:

Watch Video Solution

5. Peter has to run a distance of 200 m. He can run

a distance of 10 m in one second.

If Peter runs at this rate, then he can cover 200 m

in

A. 22 s

B. 20 s

C. 18 s

D. 13 s

Answer:

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6. The length of a thread is 10-hand spans. It is used to measure the circumference of a solid cylinder. For this purpose, the thread is wound around the circumference of the cylinder. If the thread is wound around the cylinder five times, then what is the circumference of the cylinder?

A. One-hand span

B. Two-hand spans

C. Five-hand spans

D. Ten-hand spans

Answer:



7. The height of an ice pole is 120 cm. In every half hour, the height of the pole reduces to half its length as the ice melts. What will be the height of the pole after two hours?

A. 15 mm

B. 30 mm

C. 60 mm

D. 75 mm



Iit Jee Worksheet Single Correct Answer Type Fill In The Blanks

- **1.** I. 2.4 CM = <u>i</u> mm
- II. 3.1 mm = ii km

The information in which alternative completes the

given statement?

A.
$$egin{array}{ccc} i & ii \ 240 & 3.1 imes 10^{-3} \end{array}$$

B.
$$egin{array}{cccc} i & ii \ 240 & 3.1 imes 10^{-6} \ C. & rac{i}{24} & 3.1 imes 10^{-3} \ D. & rac{i}{24} & 3.1 imes 10^{-6} \end{array}$$

Answer:

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lit Jee Worksheet Multiple Correct Answer Type

1. Which of the following is the unit of length?

A. Metre

B. Centimetre

C. Foot

D. second

Answer:

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lit Jee Worksheet Multiple Correct Answer Type

1. Which of the following is the unit of area?

A.
$$cm^2$$

 $\mathsf{B}.\,mm^2$

 $\mathsf{C}.\,m^2$

D. m/s^2

Answer:

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2. Which of the following is the unit of mass?

A. pound

B. Metre

C. gram

D. ton

Answer:

Watch Video Solution

3. Which of the following is the unit of volume?

A. cubic metre

 $B.mm^2$

 $C. cm^3$

 $D. (foot)^3$



lit Jee Worksheet Paragraph Type

1.1 deci =
$$\frac{1}{10}$$

1 centi = $\frac{1}{100}$
1 milli = $\frac{1}{1000}$
1 decimetre =

A.
$$10^{-3}m$$

B. $10^{-2}m$

 $C. 10^{-1}m$

D. 10 m

Answer:



2. 1 deci =
$$\frac{1}{10}$$

1 centi = $\frac{1}{100}$
1 milli = $\frac{1}{1000}$

1 milligram

A.
$$10^{-3}g$$

B. $10^{-2}g$ C. $10^{-1}g$

D. 10 g

Answer:

Watch Video Solution

lit Jee Worksheet Paragraph Type

1. 1 deci =
$$\frac{1}{10}$$

1 centi = $\frac{1}{100}$

 $1 \text{ milli} = \frac{1}{1000}$ 1 cm^3

- A. $10mm^3$
- $\mathsf{B}.\,10^2mm^3$
- $\mathsf{C}.\,10^3mm^3$
- D. $10^{6} mm^{3}$



2.1 deci = $\frac{1}{10}$ 1 centi = $\frac{1}{100}$ 1 killo = 1000 1 km² A. $10^3 m^2$ B. $10^6 m^2$

- $\mathsf{C}.\,10^{12}m^2$
- D. $10^{15}m^2$



3. 1 deci = $\frac{1}{10}$ 1 centi = $\frac{1}{100}$ 1 milli = $\frac{1}{1000}$ 1 milli second A. $10^{-3}s$ B. $10^{-2}s$ C. $10^{-3}s$ D. $10^{-6}s$

Answer:

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1. Radha sees her mother cleaning the room with broom. She takes two broomsticks of different lengths and decidesto measure the length of her room. She finds that the length of the room is 18 times the length of the shorter stick. The length of the shorter stick is half the length of the other stick. How many longer sticks will be required to fit along the length of the room?

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2. Swati has three dolls. She names them as Reena,
Teena, and Meena. She then takes a metre scale and measures their heights. She observes that:
I. Reena is taller than Teena by 5 cm.
II. Meena is shorter than Reena by 4 cm.
If the height of Meena is 0.55 m, then Meena is taller than Teena by _____ cm.

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3. Ramesh measures the length of a thread and finds it to be 14hand-spans. He uses it to measure the circumference of a rectangular table. He

wounds the thread around the circumference of the table. If the thread is wound around the table two times, then the circumference of the table is ______hand spans.

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4. The length of a blackboard is 240 cm. Rakesh tries to measure this length using a small wooden stick of length 40 cm. The number of times that the stick must be revolved over the blackboard to completely cover the length is _____.


lit Jee Worksheet Matrix Matching

Column I

- (A) 1 Hectogram p) 10^{-6} gram
- **1.** (B) 1 Decagram q) 10^2 gram
 - (C) 1 milli gram r) 10 gram
 - (D) 1 micro gram

Column II

- s) 10^{-3} gram

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2.

Column I Column II (a) cm^3 (i) Volume of a swimming pool (ii) Volume of a glass filled with milk (b) m^3 (iii) Volume of an exercise book (c) litre (iv) Volume of air in a room (d) millilitre

