IGCSE Cambridge Topical Past Papers

PHYSICS

0625 Paper 1

2017 — 2025

1 - (0625/11_Summer_2017_Q1)

A stopwatch is used to time a runner in a race. The diagrams show the stopwatch at the start and at the end of the race.

start

end

How long did the runner take to run the race?

A 70.00 seconds

B 110.00 seconds

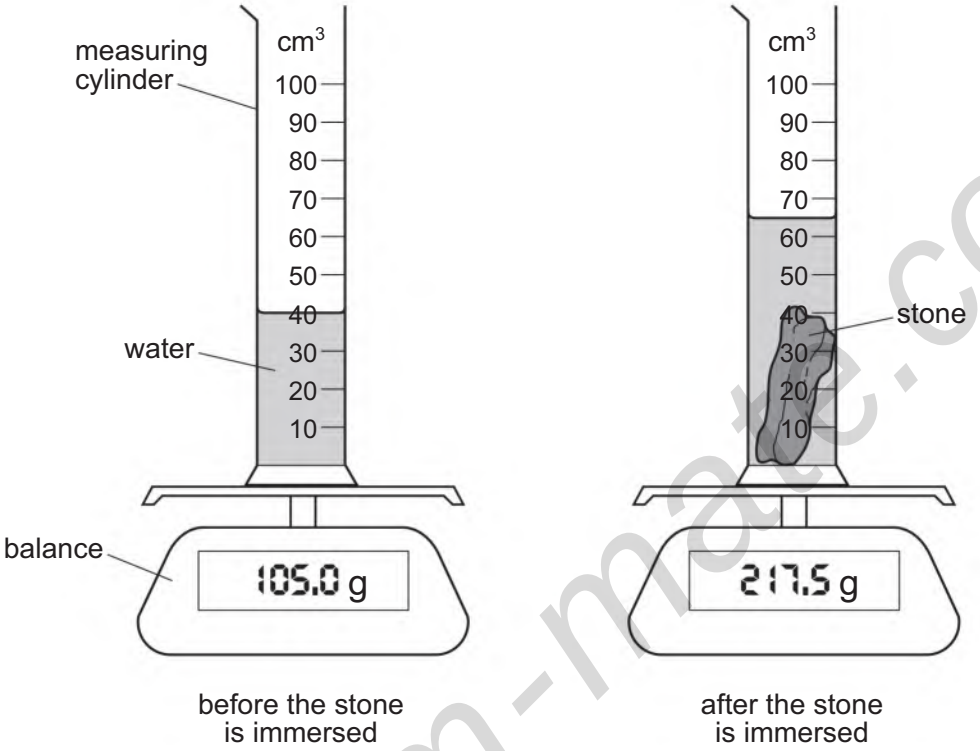
C 115.20 seconds

D 155.20 seconds

2 - (0625/11_Summer_2017_Q6)

A measuring cylinder containing only water is placed on an electronic balance. A small, irregularly shaped stone is now completely immersed in the water.

The diagrams show the equipment before and after the stone is immersed.



What is the density of the material of the stone?

A $1.7\,g/cm^3$ **B** $3.3\,g/cm^3$ **C** $4.5\,g/cm^3$ **D** $8.7\,g/cm^3$

3 - (0625/12_Summer_2017_Q1)

Which device is used to measure the time it takes for a $10\,cm^3$ block of ice to melt in a laboratory at room temperature?

A measuring cylinder

B ruler

C stopwatch

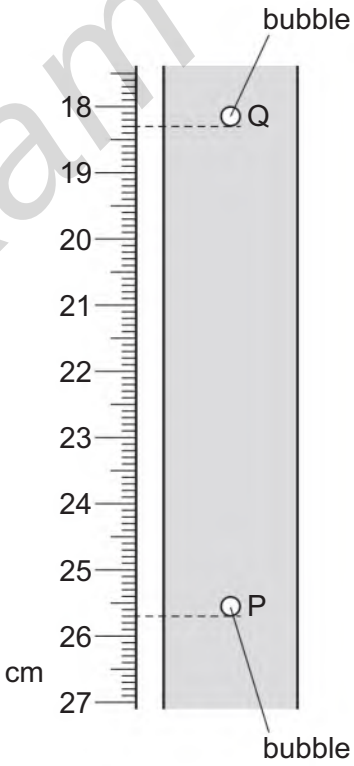
D thermometer

4 - (0625/12_Summer_2017_Q2)

A student determines the average speed of a bubble rising through a liquid at constant speed.

When the student starts the stopwatch the bubble is at position P.

After 2.0 s the bubble is at position Q.

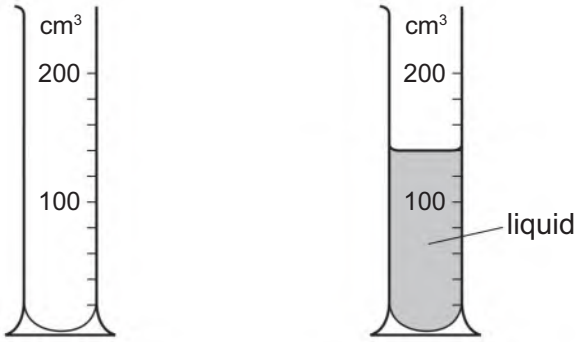


What is the speed of the bubble between P and Q?

A 3.2 cm / s **B** 3.7 cm / s **C** 6.4 cm / s **D** 7.4 cm / s

5 - (0625/12_Summer_2017_Q6)

The masses of a measuring cylinder before and after pouring some liquid into it are shown in the diagram.



mass = 80 g mass = 180 g

What is the density of the liquid?

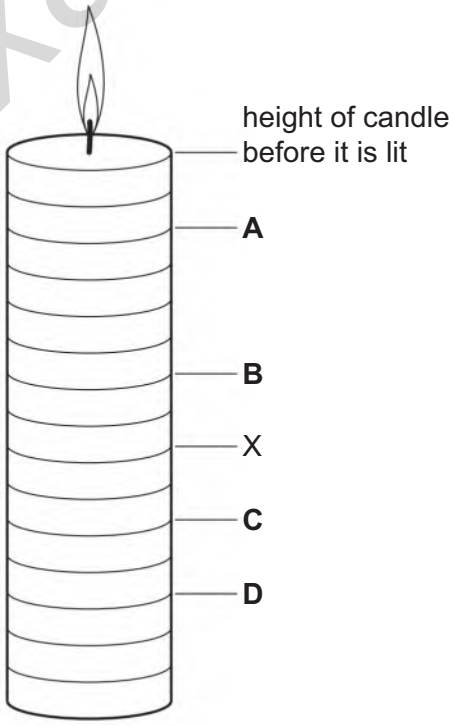
A $\frac{100}{120}$ g / cm³ **B** $\frac{100}{140}$ g / cm³ **C** $\frac{180}{120}$ g / cm³ **D** $\frac{180}{140}$ g / cm³

6 - (0625/13_Summer_2017_Q1)

A candle burns evenly. It is used as a timer.

The candle is lit and burns down to point X in 2 hours.

To which labelled point does the candle burn down after a further 30 minutes?



7 - (0625/13_Summer_2017_Q2)

A pendulum is swinging. Five students each measure the time it takes to swing through ten complete swings.

Three students measure the time as 17.2 s. Another student measures it as 16.9 s, and the fifth student measures it as 17.0 s.

What is the average period of the pendulum?

A 1.69 s **B** 1.70 s **C** 1.71 s **D** 1.72 s

8 - (0625/13_Summer_2017_Q6)

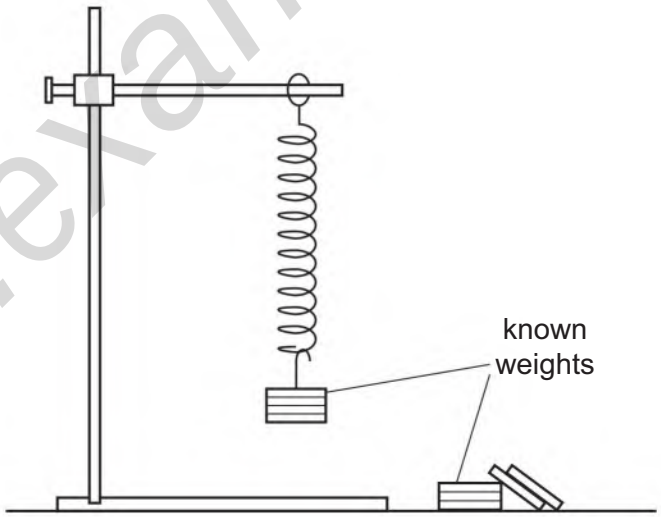
A steel ball bearing has a mass of 24 g and a density of 8.0 g / cm^3. It is lowered into a measuring cylinder containing 12 cm^3 of water.

What is the new water level in the cylinder?

A 3.0 cm^3 **B** 4.0 cm^3 **C** 15 cm^3 **D** 16 cm^3

9 - (0625/13_Summer_2017_Q8)

A student is asked to investigate the extension of a spring using the apparatus shown in the diagram.



Which other piece of equipment is needed?

A measuring cylinder

B metre rule

C stopwatch

D protractor

10 - (0625/11_Winter_2017_Q1)

A student measures the volume of a cork.

He puts some water into a measuring cylinder and then one glass ball. He puts the cork and then a second, identical glass ball into the water as shown.

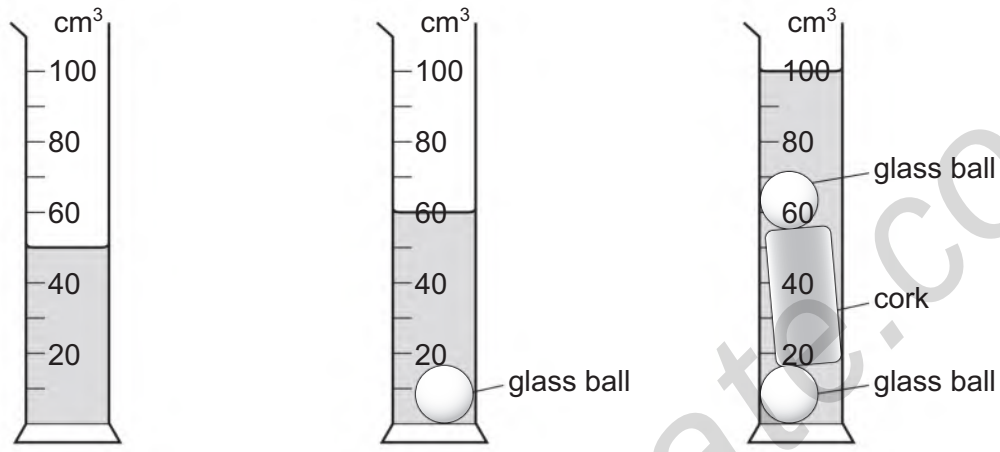


diagram 1 diagram 2 diagram 3

Diagram 1 shows the first water level.

Diagram 2 shows the water level after one glass ball is added.

Diagram 3 shows the water level after the cork and the second glass ball are added.

What is the volume of the cork?

A 30 cm^3 **B** 40 cm^3 **C** 50 cm^3 **D** 100 cm^3

11 - (0625/11_Winter_2017_Q6)

What is needed to determine the density of a regularly shaped block?

A a balance and a beaker

B a balance and a ruler

C a measuring cylinder and a beaker

D a measuring cylinder and a ruler

1 – A	21 – A	41 – B	61 – B	81 – B
2 – C	22 – A	42 – A	62 – B	82 – C
3 – C	23 – A	43 – B	63 – C	83 – A
4 – B	24 – C	44 – B	64 – B	84 – A
5 – B	25 – C	45 – A	65 – B	85 – A
6 – C	26 – A	46 – C	66 – B	86 – A
7 – C	27 – C	47 – B	67 – A	87 – B
8 – C	28 – C	48 – D	68 – A	88 – A
9 – B	29 – A	49 – C	69 – A	89 – B
10 – A	30 – C	50 – A	70 – A	90 – A
11 – B	31 – C	51 – B	71 – C	91 – B
12 – B	32 – A	52 – C	72 – D	92 – C
13 – B	33 – C	53 – C	73 – A	93 – C
14 – A	34 – C	54 – C	74 – D	94 – B
15 – B	35 – B	55 – B	75 – B	95 – B
16 – A	36 – C	56 – C	76 – C	96 – C
17 – C	37 – B	57 – A	77 – B	97 – C
18 – A	38 – D	58 – D	78 – B	98 – B
19 – A	39 – A	59 – C	79 – C	99 – C
20 – D	40 – D	60 – D	80 – B	100 – C