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Name _____

Answer every question.
You should spend about 30 minutes on this section.

Question 1
Complete the following sentences by filling in the blank spaces with the correct word(s).

(a) An _____ is a device that measures electric current.

(b) An electromagnetic is a magnet that can be turned on and off using _____.

(c) Pressure is equal to _____ divided by area.

(d) _____ occurs when light changes direction as it enters water.

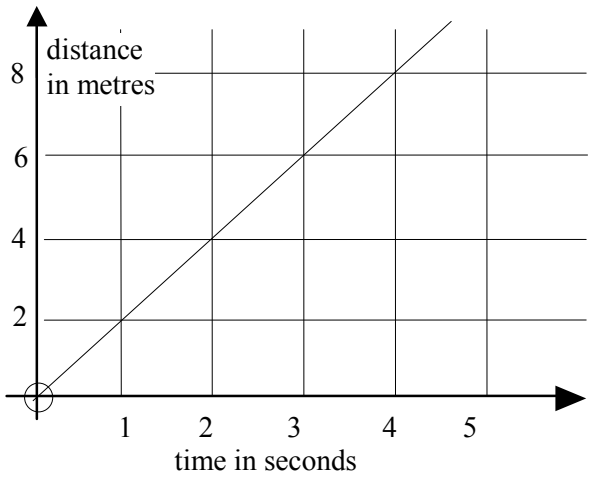
(e) The pitch of a sound depends on the sound's _____.

(f) The planet _____ is between Saturn and Mars.

(g) _____ is the way in which heat energy can travel through a vacuum.

[7]

Question 2
The graph opposite shows how the distance of a child varies in time.



(a) Estimate the distance covered by the child after 3.5 seconds.

_____

(b) How long does it take the child to cover 3 metres?

_____

(c) What is the child's average speed?

average speed = _____ [5]

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Question 3

Draw in the space below an electrical circuit containing four 2V light bulbs, a 4V battery and one switch. All of the light bulbs should operate at full brightness, two of them should be controlled by the switch.

[4]

Question 4

(a) Describe the energy changes that occur when a light bulb is powered by a battery.

--- [3]

(b) How are 'energy efficient' light bulbs different energy wise from traditional filament light bulbs?

--- [2]

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Question 5

A seesaw of length 10m is pivoted about its centre.
On one side a boy of weight 500N sits 4m from the pivot.
A woman of weight 800N sits on the other side.
How far must she sit from the pivot in order to balance the seesaw?

--- [3]

Question 6

(a) Name the nearest planet to the Moon.

--- [1]

(b) Roughly, how long does it take the Moon to perform one orbit around the Earth?

--- [1]

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Question 7

With the aid of a diagram, describe an experiment that compares how well different materials conduct heat energy.

---- [4]

TOTAL MARKS FOR THIS SECTION = 30

NOW CHECK THROUGH YOUR WORK CAREFULLY