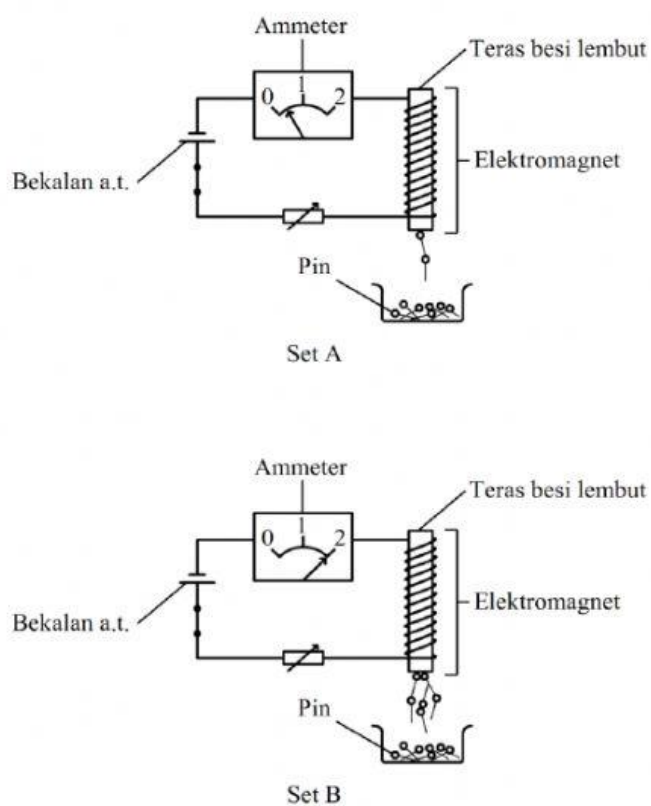


REVISION: ELECTROMAGNET (SUBTOPIC 4.1)

Figure 6.1 shows two sets of apparatus. (Teras besi lembut=soft iron core)



Rajah 6.1

(a) (i) What is electromagnet?

[1 markah]

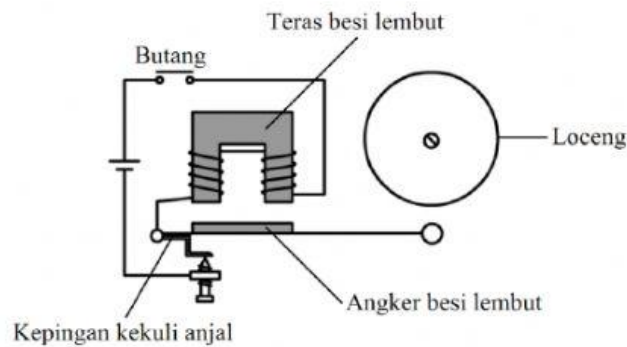
(ii) Based on set A and B on the figures above, COMPARE the number of coils of wire, the reading of ammeter, and the number of pins that are attracted to the electromagnet. Relate the reading of ammeter with the number of pins attracted to the electromagnet to deduce a relationship between current and the strength of electromagnet.

[5 markah]

(c) Figure 6.3 shows an electric bell. The electric bell rings when the button is pushed.

[Teras besi lembut=soft iron core] [Angker besi lembut=soft iron armature]

[Loceng=bell]



Rajah 6.3

The sound that is made by the electric bell is too loud. A few adjustment should be made so the bell will produce a weaker sound. Explain the adjustment needed to be done using the relevant Physics concept. You have to explain these aspects:

- Size of the bell:

Explanation:

- Number of coils of wire:

Explanation:

- Shape of the soft iron core:

Explanation:

- The thickness of the coiled wire:

Explanation:

- Flexibility of soft iron armature:

Explanation: