

Lesson B: Magnetic Force (8.2)

Name : _____

Date : _____

1. Which of these describes magnetic force?

Tick the correct answer.

<input type="checkbox"/>	It can act over a distance.
<input type="checkbox"/>	It can be seen.
<input type="checkbox"/>	It is the strongest at the centre of a magnet.

2. What does this diagram show?



Circle the correct answer.

magnetic force is strongest at the poles of a magnet

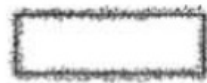
magnetic force repels magnetic objects

magnets have different strengths

3. Nur and Leena draw diagrams to show how a bar magnet interacts with iron filings.



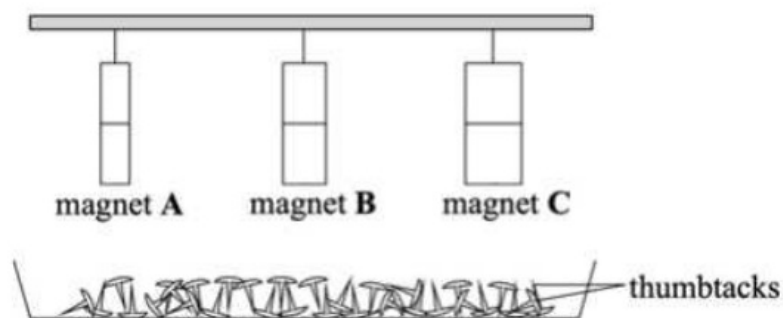
Nur's diagram



Leena's diagram

Whose diagram is correct? Explain your answer.

4. Tia is investigating if magnetic strength depends on the size of a magnet. She uses three magnets of different sizes. The diagram shows her set-up. The three magnets are hung from a string above a tray of thumbtacks.



- a. What are the independent and dependent variables in Tia's investigation?

Independent variable: _____

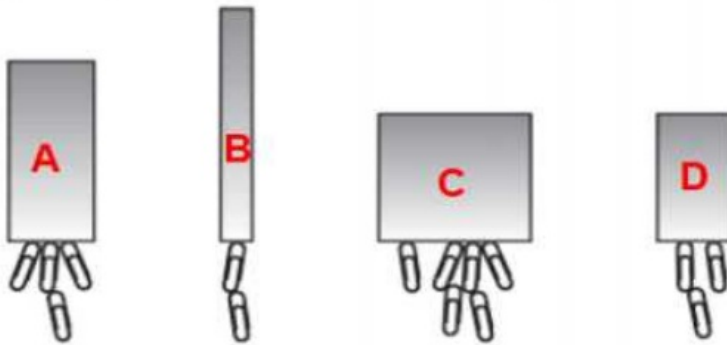
Dependent variable: _____

- b. What should Tia do to make sure that her investigation is a fair test?

5. Magnets come in all shapes, sizes and strengths.

John is using a pile of steel paper clips to test the strength of different magnets.

All paper clips are the same size and shape.



a. Fill in the table with the number of paper clips each magnet can hold.

magnet	number of paper clips
A	
B	
C	
D	

b. Which magnet is the strongest? Give a reason for your answer.

c. What property of steel allows the paper clip to be lifted by the magnet?

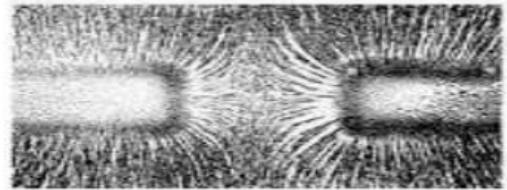
d. John tries to pick up a plastic clip with the magnet, what does he notice?

e. He puts one of his magnets near a piece of metal. As the magnet gets nearer, the piece of metal moves away. What is special about this piece of metal?

f. He now puts one of his magnets near another piece of metal but it is not attracted. Why isn't it attracted? _____

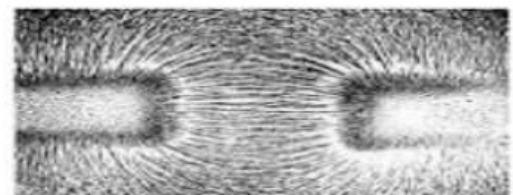
6. Peter places a sheet of glass over two magnets.

a. The diagram shows what happens when he shakes some iron filings on it.



What does this tell you about the poles of the magnets, are the poles attracting each other or repelling each other? _____

b. Peter moves/repositions one of the magnets.
The diagram shows his new results.



What does this tell you about the poles of the magnets, are they attracting each other or repelling each other? _____