

2013 Clio Invitational MagLev

Score 50 / 50

Team number _____ KEY _____
School name Nouvel Catholic Central

5 points each

1. Who discovered superconductivity?

Heike Kmmerringh Onnes (1911)

2. Who discovered the connection between electricity, magnetism and optics?

James Clerk Maxwell

3. What are the base SI units of the tesla?

kg/(ampere*s²)

4. When does the Meissner effect occur?

At a material's critical temperature

5. At what temperature does a magnetic material lose it's magnetic field?

Curie temperature

6. What short lived maglev system was made obsolete by the fall of the Berlin Wall?

The M-bahn in 1991

7. What does a solenoid produce?

a uniform magnetic field

8. Who first proposed that the earth is a large, spinning magnet?

William Gilbert

9. In what three countries are maglev systems currently deployed?

China, Japan, South Korea

10. Do permanent magnets function after the current is turned off? Yes