

Prelab Questions

These questions need to be completed before entering the lab. Please show all workings.

**Marker's
Initials**

Prelab 1

What is the direction (relative to the plane of the coil) of the magnetic field at the center of a circular coil of wire with current I ?

Prelab 2

Considering the discussion on the instruction pages, calculate the value of the local magnetic field given the following:

Number of turns, $N = 6$

$I = 0.15 \text{ A}$

Diameter of coil = 32.6 cm

Deflection angle = 27°

Show your workings.

STAPLE YOUR PRE-LAB TO THIS PAGE

Name and Student Number: _____

Date: _____

Partner: _____

QUESTION 1:

QUESTION 2:

Table 1:

Diameter	Uncertainty	Units

Table 2:

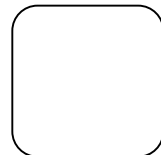
Current, I (Units)	Deflection angle, θ (Units)	$\tan \theta$

Table 3: note: Print a copy of $\tan \theta$ vs I graph with correct format.

	Value	Uncertainty	Units
Slope			

CHECKPOINT:

Verify slope is correct and data is acceptable.



Staple graph to opposing page

QUESTION 3:

QUESTION 4:

Table 4:

	Value	δI	Deflection Angle
Current 1			
Current 2			

QUESTION 5:

a)

b)

QUESTION 6:

QUESTION 7:

QUESTION 8:

QUESTION 9: