

Chapter 30 Homework Answers

6) $\frac{\mu_0 I}{4\pi x}$ into the paper

15a) $53.3 \mu\text{T}$ toward the bottom of the page

15b) $20.0 \mu\text{T}$ toward the bottom of the page

15c) 0

22a) 8.00 A

22b) opposite directions.

22c) force would double

25) 0.333 m

23) $-27.0\hat{i} \mu\text{N}$

32) $20.0 \mu\text{T}$ toward the bottom of the page

33) 5.40 cm

35a) 400 cm

35b) 7.50 nT

35c) 1.26 m

35d) 0

41a) $226 \mu\text{N}$ directed away from the center of the loop

41b) 0

47a) $7.40 \mu\text{Wb}$

47b) $2.27 \mu\text{Wb}$

44) 207 W

58) You prove it

59) 1.80 mT