

38. $I_{dy} = 0.0010 \text{ A}$ or 1.0 mA
 $I_{wt} = 0.33 \text{ A}$
 current increased by 330 times
39. $3.1 \times 10^2 \text{ kW}\cdot\text{h}$
40. a) no
 b) yes, 10 A
 c) 1200 W
41. a) 3.6 V
 b) 1.2 V
42. $1.92 \times 10^{-17} \text{ J}$
43. 405 J
44. 1.20 mA, safe
45. four times
46. 11 kJ
47. a) 12 Ω
 b) 1 A
 c) 10 V
 d) 3.3 W
48. b) 0.75 A
 c) $1.6 \times 10^2 \Omega$, 96.0 Ω
49. a) 12
 b) 20
50. \$846
52. a) top is south
 b) top is south
 c) top is north
53. a) 150 N
 b) multiplied by 4
54. a) 7.5 A
 b) 1.20×10^4 turns
55. 25 kN
56. b) 1000 times
58. 1.15 kV, 0.200 A
59. 39 turns
60. 60 W