

MTH 111 Chapter 3 Graded Homework
 Answer Key

<p>3.1 #35-40</p> <p>35. The basic SI unit of length is <u>Answer ↓</u> .</p> <p>36. The basic SI unit of mass is ____ .</p> <p>37. The basic SI unit of electric current is <u>Answer ↓</u> .</p> <p>38. The basic SI unit of time is ____ .</p> <p>39. The common SI units of volume are <u>Answer ↓</u> and <u>Answer ↓</u> .</p> <p>40. The common SI unit of power is ____ .</p> <p>35. meter or centimeter 36. gram or kilogram 37. ampere or amp 38. second 39. liter, cubic-meter 40. watt</p> <p>Note: some SI systems use kilograms and meters (kms) and some use grams and centimeters (cgs) where s is seconds in both cases.</p>	<p>3.2 #7-18</p> <p>7. 1 m = <u>Answer ↓</u> mm</p> <p>8. 1 km = ____ m</p> <p>9. 1 cm = <u>Answer ↓</u> m</p> <p>10. 1 m = ____ cm</p> <p>11. 1 m = <u>Answer ↓</u> km</p> <p>12. 1 hm = ____ m</p> <p>13. 1 mm = <u>Answer ↓</u> m</p> <p>14. 1 m = ____ hm</p> <p>15. 1 cm = <u>Answer ↓</u> mm</p> <p>16. 1 mm = ____ cm</p> <p>17. 1 dam = <u>Answer ↓</u> dm</p> <p>18. 1 dm = ____ m</p> <p>7. 1000 mm 8. 1000 m 9. 1/100 m 10. 100 cm 11. 1/1000 km 12. 100 m 13. 1/1000 m 14. 1/100 hm 15. 10 mm 16. 1/10 cm 17. 100 dm 18. 1/10 m</p>	<p>3.2 #56</p> <p>56. Change 0.25 km to m.</p> <p>250 m</p>
<p>3.2 #60</p> <p>60. Change 48 cm to mm.</p> <p>480</p>	<p>3.2 #62</p> <p>62. Change 0.75 m to μm.</p> <p>750,000 μm</p>	<p>3.3 #7-14</p> <p>7. 1 g = <u>Answer ↓</u> mg</p> <p>8. 1 kg = ____ g</p> <p>9. 1 cg = <u>Answer ↓</u> g</p> <p>10. 1 mg = ____ g</p> <p>11. 1 metric ton = <u>Answer ↓</u> kg</p> <p>12. 1 g = ____ cg</p> <p>13. 1 mg = <u>Answer ↓</u> μg</p> <p>14. 1 μg ____ mg</p> <p>7. 1000 mg 8. 1000 g 9. 1/100 g 10. 1/1000 g 11. 1000 kg 12. 100 cg 13. 1000 μg 14. 1/1000 mg</p>

<p>3.3 #46</p> <p>46. Change 6.4 mg to μg.</p> <p>6,400 μg</p>	<p>3.4 #7-14</p> <p>7. 1 L = <u>Answer</u> mL</p> <p>8. 1 mL = <u> </u> L</p> <p>9. 1 m³ = <u>Answer</u> cm³</p> <p>10. 1 mm³ = <u> </u> cm³</p> <p>11. 1 cm² = <u>Answer</u> mm²</p> <p>12. 1 km² = <u> </u> ha</p> <p>13. 1 m³ = <u>Answer</u> L</p> <p>14. 1 cm³ = <u> </u> mL</p> <p>7. 1000 mL 8. 1/1000 L 9. 1,000,000 cm³ 10. 1/1000 cm³ 11. 100 mm² 12. 100,000 ha 13. 1000 L 14. 1 mL</p>	<p>3.4 #18</p> <p>18. Size of a farm</p> <p>hectares</p>
<p>3.4 #22</p> <p>22. Paint needed to paint a house</p> <p>m²</p>	<p>3.4 #24</p> <p>24. Page size of this book</p> <p>cm²</p>	<p>3.4 #42</p> <p>42. Change 450 mm³ to cm³.</p> <p>0.45 cm³</p>
<p>3.5 #4</p> <p>4. 1 megawatt or 1 milliwatt</p> <p>A megawatt is larger</p>	<p>3.5 #12</p> <p>12. 55 microfarads</p> <p>μF</p>	<p>3.5 #15-22</p> <p>15. 1 kW = <u>Answer</u> W</p> <p>16. 1 mA = <u> </u> A</p> <p>17. 1 ns = <u>Answer</u> s</p> <p>18. 1 day = <u> </u> s</p> <p>19. 1 A = <u>Answer</u> μA</p> <p>20. 1 F = <u> </u> μF</p> <p>21. 1 V = <u>Answer</u> MV</p> <p>22. 1 Hz = <u> </u> kHz</p> <p>15. 1000 W 16. 1/1000 A 17. 1/1,000,000,000 s 18. 86,400 s 19. 1,000,000 μA 20. 1,000,000 μF 21. 1/1,000,000 MV 22. 1/1,000 kHz</p>
<p>3.5 #32</p>	<p>3.6 #10</p>	<p>3.7 #12</p>

<p>32. Change 5×10^{12} W to MW.</p> <p>5×10^6 MW</p>	<p>10. The weather forecast calls for a low temperature of 3°C. What should you plan to do?</p> <p>a. Sleep with the windows open. b. Protect your plants from frost. c. Sleep with the air conditioner on. d. Sleep with an extra blanket.</p> <p>d. sleep with an extra blanket (it's not quite cold enough to freeze)</p>	<p>12. A hole is 35 mm wide. How many inches wide is it?</p> <p>1.38 inches</p>
<p>3.7 #24</p> <p>24. Change 12 cm^2 to in^2.</p> <p>1.86 in^2</p>	<p>3.7 #34</p> <p>34. How many in^3 are in 25 cm^3?</p> <p>1.53 in^3</p>	<p>3.7 #40</p> <p>40. How many acres are in a rectangular field that measures 820 yd by 440 yd?</p> <p>74.5 acres</p>
<p>3.7 #54</p> <p>54. Change 1.5 g/cm^2 to mg/mm^2.</p> <p>15 mg/mm^2</p>		