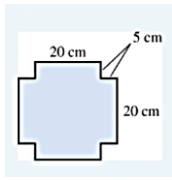
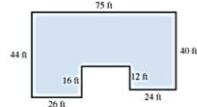
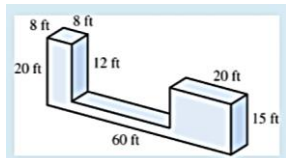


MTH 111 Chapter 1 Graded Homework  
 Answer Key

<p>1.1 #4</p> <p>4. <b>579</b></p> <p>78                  107                  45                  217                  9                  123</p>	<p>1.1 #10</p> <p>10. <math>417,286 - 287,156</math></p> <p><b>130130</b></p>	<p>1.1 #22</p> <p>Multiply</p> <p>22.</p> <p>8374                  203</p> <p><b>1,699,922</b></p>
<p>1.1 #28</p> <p>28. <math>\sqrt[5]{308,736}</math></p> <p><b>61,747 R 1</b></p>	<p>1.2 #6</p> <p>6. <math>5(8 \times 9) + (13 + 7) \div 4</math></p> <p><b>365</b></p>	<p>1.2 #20</p> <p>20. <math>(19 + 8)(4 + 3) \div 21 + (8 \times 15) \div (4 \times 3)</math></p> <p><b>19</b></p>
<p>1.2 #40</p> <p>40. <math>\frac{(20 - 2 \cdot 5)^2}{3^3 - 2}</math></p> <p><b>4</b></p>	<p>1.3 #12</p>  <p><b>800 cm<sup>2</sup></b></p>	<p>1.3 #18</p> <p>18. The replacement cost for construction of the building in Illustration 4 is \$90/ft<sup>2</sup>. Determine how much insurance should be carried for full replacement.</p> <p>Illustration 4</p>  <p><b>\$252,360</b></p>
<p>1.3 #24</p>  <p><b>5728 ft<sup>3</sup></b></p>	<p>1.4 #16</p> <p>Area of triangle?</p> <p>16. <math>b = 188 \text{ m}, h = 220 \text{ m}</math></p> <p><b>20,680 m<sup>2</sup></b></p>	<p>1.4 #22</p> <p>Area of trapezoid?</p> <p>22. <math>a = 30 \text{ in.}, b = 50 \text{ in.}, h = 24 \text{ in.}</math></p> <p><b>960<sup>2</sup></b></p>
<p>1.4 #30</p> <p>30. Given <math>P = I^2 R, I = 4,</math> and <math>R = 2000,</math> find <math>P.</math></p> <p><b>32,000</b></p>	<p>1.6 #30</p> <p>30. <math>\frac{525}{1155}</math></p> <p><b><math>\frac{5}{11}</math></b></p>	<p>1.6 #36</p> <p>36. <math>\frac{67}{16}</math></p> <p><b><math>4\frac{3}{16}</math></b></p>
<p>1.6 #40</p> <p>40. <math>2\frac{70}{16}</math></p> <p><b><math>\frac{51}{8} = 6\frac{3}{8}</math></b></p>	<p>1.6 #50</p> <p>50. <math>12\frac{5}{6}</math></p> <p><b><math>\frac{77}{6}</math></b></p>	<p>1.7 #22</p> <p>22. <math>\frac{1}{14} + \frac{1}{15} + \frac{1}{6}</math></p> <p><b><math>\frac{32}{105}</math></b></p>
<p>1.7 #32</p> <p>32. <math>\frac{7}{8} - \frac{2}{9} - \frac{1}{12}</math></p>	<p>1.7 #45</p> <p>45. <math>16\frac{5}{8} - 4\frac{7}{12} - 2\frac{1}{2}</math></p>	<p>1.7 #58</p>

$$\frac{41}{72}$$

$$\frac{229}{24} = 9\frac{13}{24}$$

58. A finished product consists of four components that will be assembled and packaged for shipment. The box manufacturer has requested the total product weight be on the drawing so that the appropriate strength cardboard is used. What is the product weight? (1 lb = 16 oz)

Part	Weight each
1	$3\frac{1}{2}$ oz
2	$33\frac{1}{8}$ oz
3	6 lb
4	$10\frac{1}{3}$ oz

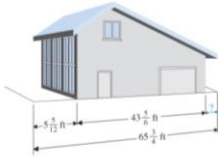
$$142\frac{23}{24} \text{ oz}$$

Or just shy of 9 pounds.

1.7 #80

80. A home is built on a  $65\frac{3}{4}$ -ft-wide lot. The house is  $5\frac{5}{12}$  ft from one side of the lot and is  $43\frac{5}{6}$  ft wide. (See Illustration 11.) What is the distance from the house to the other side of the lot?

Illustration 11



$$16\frac{1}{2} \text{ ft}$$

1.8 #8

$$8. \frac{7}{12} \times \frac{45}{56}$$

$$\frac{15}{32}$$

1.8 #20

$$20. 18\frac{2}{3} \div 6$$

$$\frac{28}{9} = 3\frac{1}{9}$$

1.8 #68

68. If  $1 \text{ ft}^3$  of cotton weighs  $22\frac{1}{2}$  lb, how many cubic feet are contained in a bale of cotton weighing 500 lb? In 15 tons of cotton?

$$22\frac{2}{9} \text{ ft}^3$$

$$1,333\frac{1}{3} \text{ ft}^3$$

1.10 #8

8.1461

Eight and one thousand four hundred sixty-one ten-thousandths

1.10 #14

Five hundred sixty-three millionths

0.000563

1.10 #48

$$0.0056 + 0.023 - 0.00456 + 0.9005$$

0.92456

1.11 #30

4 significant digits:  
23.2347

23.23

1.11 #34

3 significant digits:  
0.00118952

0.00119

1.12 #18

3 sig figs

$$18. \frac{(16.5)(1.95)(12.4) + (6.3)(0.75)}{(125)(0.05) - (0.15)(4.7)}$$

72.8

1.12 #22

$$22. \frac{2^3 + (2 + 3 \cdot 6)^2}{(2 \cdot 5 - 4)^2 + 3 \cdot 5}$$

8

1.12 #42

42. A garage service manager has authorized \$95 to be spent on overtime to complete a job. If the overtime pay is \$29.75/h, how many hours of overtime were authorized?

20 hours

1.12 #70

70. One U.S. bushel contains  $1.2445 \text{ ft}^3$ . A silo that has a capacity of  $10,240 \text{ ft}^3$  can store how many bushels of corn? Round to the nearest bushel.

8228 bushels

1.14 #14

14. The number 2040 is 7.5% of what number?

27,200

1.14 # 22

22. A customer wants to buy four tires that cost \$159.95 each. There is a sales tax of 7.5% on the tires plus an EPA fee of \$2.50 for each tire and a disposal fee of \$3.69 for each tire. What is the total bill?

\$178.14

1.15 #5

3 sig figs:  
 $0.00257^2$

0.0000660 or  $6.60 \times 10^{-6}$

1.15 #16

3 sig figs

$$\sqrt{12,500}$$

112