

END-OF-CHAPTER PROBLEMS

connect^{plus}

www.mhhe.com/slater2014

Check figures for odd-numbered problems in Appendix C.

Name _____ Date _____

DRILL PROBLEMS

Add the following: LU 1-2(1)

$$\begin{array}{r} 1-1. \quad 88 \\ + 75 \\ \hline 163 \end{array}$$

$$\begin{array}{r} 1-2. \quad 6,251 \\ + 7,329 \\ \hline 13,580 \end{array}$$

$$\begin{array}{r} 1-3. \quad 59,481 \\ 51,411 \\ + 70,821 \\ \hline 181,713 \end{array}$$

Subtract the following: LU 1-2(2)

$$\begin{array}{r} 1-4. \quad 68 \quad \overset{518}{\cancel{68}} \\ - 19 \quad \underline{-19} \\ \hline 49 \end{array}$$

$$\begin{array}{r} 1-5. \quad 287 \quad \overset{11717}{\cancel{287}} \\ - 199 \quad \underline{-199} \\ \hline 88 \end{array}$$

$$\begin{array}{r} 1-6. \quad 9,000 \quad \overset{810}{\cancel{9,000}} \\ - 5,400 \quad \underline{-5,400} \\ \hline 3,600 \end{array}$$

Multiply the following: LU 1-2(3)

$$\begin{array}{r} 1-7. \quad 60 \\ \times 7 \\ \hline 420 \end{array}$$

$$\begin{array}{r} 1-8. \quad 800 \\ \times 200 \\ \hline 160,000 \end{array}$$

$$\begin{array}{r} 1-9. \quad 677 \\ \times 503 \\ \hline 2031 \\ 33850 \\ \hline 340,531 \end{array}$$

Divide the following by short division: LU 1-2(4)

$$1-10. \quad \overset{90}{9} \overline{)810}$$

$$1-11. \quad \overset{41}{4} \overline{)164}$$

Divide the following by long division. Show work and remainder. LU 1-2(4)

$$\begin{array}{r} 1-12. \quad \overset{86R4}{6} \overline{)520} \\ \underline{48} \\ 40 \\ \underline{36} \\ 4 \end{array}$$

$$\begin{array}{r} 1-13. \quad \overset{143R49}{62} \overline{)8,915} \\ \underline{62} \\ 271 \\ \underline{248} \\ 235 \\ \underline{186} \\ 49 \end{array}$$

Add the following without rearranging: LU 1-2(1)

$$1-14. \quad 666 + 950 = 1,616$$

$$1-15. \quad 1,011 + 17 = 1,028$$

Estimate the following by rounding all the way and then do actual addition: LU 1-1(2), LU 1-2(1)

Actual	Estimate	Actual	Estimate
1-16. $\begin{array}{r} 7,700 \\ 9,286 \\ + 3,900 \\ \hline 20,886 \end{array}$	$\begin{array}{r} 8,000 \\ 9,000 \\ + 4,000 \\ \hline 21,000 \end{array}$	1-17. $\begin{array}{r} 6,980 \\ 3,190 \\ + 7,819 \\ \hline 17,989 \end{array}$	$\begin{array}{r} 7,000 \\ 3,000 \\ + 8,000 \\ \hline 18,000 \end{array}$

Subtract the following without rearranging: LU 1-2(2)

$$1-18. \quad 190 - 66 = 124$$

$$1-19. \quad 950 - 870 = 80$$

1-20. Subtract the following and check answer: LU 1-2(2)

$$\begin{array}{r} 591,001 \\ - 375,956 \\ \hline 215,045 \end{array} \quad \begin{array}{l} \overset{8109911}{591,001} \leftarrow 215,045 \\ - 375,956 \\ \hline 215,045 \end{array} \quad \begin{array}{l} + 375,956 \\ \hline 591,001 \end{array}$$

Multiply the following horizontally: LU 1-2(3)

$$1-21. \quad 84 \times 8 = 672$$

$$1-22. \quad 27 \times 8 = 216$$

Divide the following and check by multiplication: *LU 1-2(4)*

$$\begin{array}{r} 19 \text{ R}21 \\ 45 \overline{)876} \\ \underline{45} \\ 426 \\ \underline{405} \\ 21 \end{array}$$

Check

$$45 \times 19 = 855 \\ + 21 \text{ (R)} \\ \hline 876$$

$$\begin{array}{r} 42 \text{ R}18 \\ 46 \overline{)1,950} \\ \underline{184} \\ 110 \\ \underline{92} \\ 18 \end{array}$$

Check

$$46 \times 42 = 1,932 \\ + 18 \text{ (R)} \\ \hline 1,950$$

Divide the following by the shortcut method: *LU 1-2(4)*

$$\begin{array}{r} 950 \\ 1,000 \overline{)950,000} \quad 1 \overline{)950} \\ \text{Drop 3 zeros} \end{array}$$

$$\begin{array}{r} 700 \\ 100 \overline{)70,000} \quad 1 \overline{)700} \\ \text{Drop 2 zeros.} \end{array}$$

1-27. Estimate actual problem by rounding all the way and do actual division: *LU 1-1(2), LU 1-2(4)*

Actual

$$\begin{array}{r} 12 \text{ R}610 \\ 695 \overline{)8,950} \\ \underline{695} \\ 2000 \\ \underline{1390} \\ 610 \end{array}$$

Estimate

$$\begin{array}{r} 12 \text{ R}600 \\ 700 \overline{)9,000} \\ \underline{700} \\ 2000 \\ \underline{1400} \\ 600 \end{array}$$

Identify the place value for the following: *LU 1-1(1)*

1-28. 7.9382 **hundredths**



1-29. 462.8391 **thousandths**



Round the following as indicated: *LU 1-1(2)*

	Tenth	Hundredth	Thousandth
1-30. .7391	.7	.74	.739
1-31. 6.8629	6.9	6.86	6.863
1-32. 5.8312	5.8	5.83	5.831

Round the following to the nearest cent: *LU 1-1(2)*

1-33. \$4,822.775 **\$4,822.78**

Write the decimal equivalent of the following: *LU 1-1(1)*

1-34. Five thousandths **.005**

1-35. Three hundred three and two hundredths **303.02**

1-36. Eighty-five ten thousandths **.0085**

1-37. Seven hundred seventy-five thousandths **.775**

Rearrange the following and add: *LU 1-3(1)*

1-38. .115, 10.8318, 4.7, 802.4811 **818.1279**

1-39. .005, 2,002.181, 795.41, 14.0, .184 **2,811.78**

Rearrange the following and subtract: *LU 1-3(1)*

1-40. $9.2 - 5.8 = 3.4$

1-41. $7 - 2.0815 = 4.9185$

1-42. $3.4 - 1.08 = 2.32$

Estimate by rounding all the way and multiply the following (do not round final answer): *LU 1-1(2), LU 1-3(1)*

1-43. $6.24 \times 3.9 = 24.336$

1-44. $.413 \times 3.07 = 1.26791$

Estimate 24 (6×4)

Estimate 1.2 ($.4 \times 3$)

Divide the following and round to the nearest hundredth: *LU 1-3(1)*

1-45. $.8931 \div 3 = .30$

1-46. $29.432 \div .0012 = 24,526.67$

1-47. $.0065 \div .07 = .09$

1-48. $7,742.1 \div 48 = 161.29$

1-54. $7.9132 \times 1,000 = 7,913.2$

30

- 1–59.** As the Boston MarketWatch for January 2012 states, “The Approved Card” from Suze Orman provides a pretty fair deal. This prepaid debit card costs \$3 to purchase and there is a \$3 monthly account maintenance fee (the first month’s charge is waived). Withdrawals at ATMs cost \$2. If Hanna Lind used this card for 8 months and had nine ATM withdrawals, what would her charge be? *LU 1-2(3), LU 1-2(1)*

$$\begin{array}{r}
 \text{Purchase price} \quad \quad \quad \$ 3 \\
 7 \text{ months (first month free)} \times \$3 = \quad 21 \\
 \$2 \text{ ATM charges} \times 9 = \quad \quad 18 \\
 \hline
 \text{Total:} \quad \quad \quad \$42
 \end{array}$$

- 1–60.** A report from the Center for Science in the Public Interest—a consumer group based in Washington, DC—released a study listing calories of various ice cream treats sold by six of the largest ice cream companies. The highest calorie treat tested by the group was 1,270 total calories. People need roughly 2,200 to 2,500 calories per day. Using a daily average, how many additional calories should a person consume after eating the ice cream? *LU 1-2(1), LU 1-2(4), LU 1-2(2)*

$$\begin{array}{r}
 2,200 \\
 + 2,500 \\
 \hline
 4,700
 \end{array}
 \qquad
 \begin{array}{r}
 2,350 \text{ average} \\
 2)4,700 \\
 \hline
 4 \\
 7 \\
 6 \\
 10 \\
 10 \\
 0
 \end{array}
 \qquad
 \begin{array}{r}
 2,350 \\
 - 1,270 \\
 \hline
 1,080
 \end{array}$$

- 1–61.** At Rose State College, Alison Wells received the following grades in her online accounting class: 90, 65, 85, 80, 75, and 90. Alison’s instructor, Professor Clark, said he would drop the lowest grade. What is Alison’s average? *LU 1-2(1, 4)*

$$90 + 85 + 80 + 75 + 90 = 420 \div 5 = 84 \text{ average}$$

- 1–62.** Ron Alf, owner of Alf’s Moving Company, bought a new truck. On Ron’s first trip, he drove 1,200 miles and used 80 gallons of gas. How many miles per gallon did Ron get from his new truck? On Ron’s second trip, he drove 840 miles and used 60 gallons. What is the difference in miles per gallon between Ron’s first trip and his second trip? *LU 1-2(1, 4)*

$$\begin{array}{l}
 1,200 \div 80 = 15 \text{ miles per gallon} \\
 840 \div 60 = 14 \text{ miles per gallon}
 \end{array}
 \qquad
 \text{Difference} = 1 \text{ mile per gallon}$$

- 1–63.** In Bankrate.com’s Smart Spending column for early 2012, Jan Fandrich of Billings, Montana, explains how she saves money, stays healthy, and helps the environment by using baking soda and vinegar instead of toxic commercial cleaners. She puts a little bit of vinegar in the rinse cycle instead of fabric softener, and mops the floors and cleans the showers with a mix of baking soda and vinegar in water. If a box of baking soda costs \$1 and a bottle of vinegar is \$2, how much will her cleaning supplies cost if she uses five boxes of baking soda and 10 bottles of vinegar in 1 year? *LU 1-2(3), LU 1-2(1)*

$$\begin{array}{r}
 5 \text{ boxes of baking soda} \times \$1 = \$ 5 \\
 10 \text{ bottles of vinegar} \times \$2 = \quad \$20 \\
 \hline
 \text{Total:} \quad \quad \quad \$25
 \end{array}$$

- 1–64.** Assume BarnesandNoble.com has 289 business math texts in inventory. During one month, the online bookstore ordered and received 1,855 texts; it also sold 1,222 on the web. What is the bookstore’s inventory at the end of the month? If each text costs \$59, what is the end-of-month inventory cost? *LU 1-2(1), LU 1-2(3)*

$$\begin{array}{r}
 289 + 1,855 = 2,144 \\
 2,144 \\
 - 1,222 \\
 \hline
 922
 \end{array}
 \qquad
 \begin{array}{l}
 922 \times \$59 = \$54,398 \\
 922 \text{ end-of-month inventory}
 \end{array}$$

- 1–65.** A local community college has 20 faculty members in the business department, 40 in psychology, 26 in English, and 140 in all other departments. What is the total number of faculty at this college? If each faculty member advises 25 students, how many students attend the local college? *LU 1-2(1), LU 1-2(3)*

$$\begin{array}{l}
 20 + 40 + 26 + 140 = 226 \text{ faculty} \\
 226 \times 25 = 5,650 \text{ students}
 \end{array}$$

- 1–66.** Ryan Seary works at US Airways and earned \$71,000 last year before tax deductions. From Ryan’s total earnings, his company subtracted \$1,388 for federal income taxes, \$4,402 for Social Security, and \$1,030 for Medicare taxes. What was Ryan’s actual, or net, pay for the year? *LU 1-2(1, 2)*

$$\begin{array}{r}
 \$71,000 \\
 - 6,820 (\$1,388 + \$4,402 + \$1,030) \\
 \hline
 \$64,180
 \end{array}$$

- 1-67.** An article in *The New York Times* on January 5, 2012, discussed how individuals with little or no prior credit sources may benefit from a new tracking procedure. Experian, one of the three leading credit reporting companies, is now tracking on-time rent payments, thereby raising the credit scores of many people. Experian uses FICO scores, a three-digit rating system ranging generally from 300–850, to rate how risky a borrower is. If you currently have a FICO score of 550 and on-time rent payments increase your FICO score by 80, what is your new FICO score? LU 1-2(1)

$$550 + 80 = 630$$

- 1-68.** Moe Brink has a \$900 balance in his checkbook. During the week, Moe wrote the following checks: rent, \$350; telephone, \$44; food, \$160; and entertaining, \$60. Moe also made a \$1,200 deposit. What is Moe's new checkbook balance? LU 1-2(1, 2)

$$\begin{array}{r} \$ 900 \\ + 1,200 \\ \hline \$2,100 \\ - 614 (\$350 + \$44 + \$160 + \$60) \\ \hline \$1,486 \end{array}$$

- 1-69.** Rich Engel, the bookkeeper for Engel's Real Estate, and his manager are concerned about the company's telephone bills. **Excel** Last year the company's average monthly phone bill was \$32. Rich's manager asked him for an average of this year's phone bills. Rich's records show the following: LU 1-2(1), LU 1-2(4)

January	\$ 34	July	\$ 28
February	60	August	23
March	20	September	29
April	25	October	25
May	30	November	22
June	59	December	41
	<u>\$228</u>		<u>\$168</u>

What is the average of this year's phone bills? Did Rich and his manager have a justifiable concern?

$$\$228 + \$168 = \$396 \div 12 = \$33$$

No justifiable concern.

- 1-70.** On Monday, a local True Value Hardware sold 15 paint brushes at \$3 each, six wrenches at \$5 each, seven bags of grass seed at \$3 each, four lawn mowers at \$119 each, and 28 cans of paint at \$8 each. What were True Value's total dollar sales on Monday? LU 1-2(1), LU 1-2(3)

$$\begin{array}{l} \$45 + \$30 + \$21 + \$476 + \$224 = \$796 \\ (15 \times \$3) + (6 \times \$5) + (7 \times \$3) + (4 \times \$119) + (28 \times \$8) \end{array}$$

- 1-71.** While redecorating, Lee Owens went to Carpet World and bought 150 square yards of commercial carpet. The total cost of the carpet was \$6,000. How much did Lee pay per square yard? LU 1-2(4)

$$\$6,000 \div 150 = \$40 \text{ per square yard}$$

As needed, round answers to the nearest cent.

- 1-72.** A Chevy Volt costs \$29,000 in the United States. What would it cost in Canada? Check your answer. LU 1-3(2)

$$\$29,000 \times 1.0210 = \$29,609$$

$$\text{Check } \$29,609 \times .9794 = \$28,999.05 \quad (\text{The number is off due to rounding.})$$

- 1-73.** Pete Ross read in a *Wall Street Journal* article that the cost of parts and labor to make an Apple iPhone 4S were as follows: LU 1-3(1)

Display	\$37.00	Wireless	\$23.54
Memory	\$28.30	Camera	\$17.60
Labor	\$ 8.00	Additional items	\$81.56

Assuming Pete pays \$649 for an iPhone 4S, how much profit does the iPhone generate?

$$\text{Total cost} = \$196$$

$$\text{Profit} = \$649 - \$196 = \$453$$

- 1-74.** At the Party Store, Joan Lee purchased 21.50 yards of ribbon. Each yard costs 91 cents. What was the total cost of the ribbon? Round to the nearest cent. LU 1-3(1)

$$21.50 \times \$0.91 = \$19.565 = \$19.57$$

- 1-75.** Pete is traveling by car to a computer convention in San Diego. His company will reimburse him \$.48 per mile. If Pete travels 210.5 miles, how much will Pete receive from his company? *LU 1-3(1)*

$$.48 \times 210.5 = \$101.04$$

- 1-76.** Mark Ogara rented a truck from Avis Rent-A-Car for the weekend (2 days). The base rental price was \$29.95 per day plus $14\frac{1}{2}$ cents per mile. Mark drove 410.85 miles. How much does Mark owe? *LU 1-3(1)*

$$2 \times \$29.95 = \$59.90$$

$$.145 \times 410.85 = + 59.57$$

$$\underline{\$119.47}$$

- 1-77.** Nursing home costs are on the rise as consumeraffairs.com reports in its quarterly newsletter. The average cost is around \$192 a day with an average length of stay of 2.5 years. Calculate the cost of the average nursing home stay. *LU 1-3(1)*

$$365 \times 2.5 = 912.50 \text{ days}$$

$$\$192 \times 912.50 = \$175,200$$

- 1-78.** Bob Ross bought a Blackberry on the web for \$89.99. He saw the same Blackberry in the mall for \$118.99. How much did Bob save by buying on the web? *LU 1-3(1)*

$$\begin{array}{r} 1018 \\ \$118.99 \\ - 89.99 \\ \hline \$ 29.00 \end{array}$$

- 1-79.** Randi went to Lowe's to buy wall-to-wall carpeting. She needs 110.8 square yards for downstairs, 31.8 square yards for the halls, and 161.9 square yards for the bedrooms upstairs. Randi chose a shag carpet that costs \$14.99 per square yard. She ordered foam padding at \$3.10 per square yard. The carpet installers quoted Randi a labor charge of \$3.75 per square yard. What will the total job cost Randi? *LU 1-3(1)*

$$\$14.99 + \$3.10 + \$3.75 = \$ 21.84$$

$$110.8 \text{ square yards} + 31.8 \text{ square yards} + 161.9 \text{ square yards} = \times \underline{304.5}$$

$$\$6,650.28$$

- 1-80.** Roger bought season tickets for weekend games to professional basketball games. The cost was \$945.60. The season package included 36 home games. What is the average price of the tickets per game? Round to the nearest cent. Marcelo, Roger's friend, offered to buy four of the tickets from Roger. What is the total amount Roger should receive? *LU 1-3(1)*

$$\begin{array}{r} \$945.60 \div 36 = \$26.27 \\ \$ 26.27 \\ \times \quad 4 \\ \hline \$105.08 \end{array}$$

CHALLENGE PROBLEMS

- 1-81.** A mall in Lexington has 18 stores. The following is a breakdown of what each store pays for rent per month. The rent is based on square footage.

5 department/computer stores	\$1,250	2 bakeries	\$ 500
5 restaurants	860	2 drugstores	820
3 bookstores	750	1 supermarket	1,450

Calculate the total rent that these stores pay annually. What would the answer be if it were rounded all the way? How much more each year do the drugstores pay in rent compared to the bakeries? *LU 1-2(3), LU 1-1(2)*

$$5 \times \$1,250 = \$ 6,250$$

$$5 \times 860 = 4,300$$

$$3 \times 750 = 2,250$$

$$2 \times 500 = 1,000$$

$$2 \times 820 = 1,640$$

$$1 \times 1,450 = 1,450$$

$$\underline{\$16,890 \times 12 = \$202,680} \quad \$200,000$$

$$\text{Drugstores: } \$1,640 \times 12 = \$19,680$$

$$\text{Bakeries: } 1,000 \times 12 = \underline{-12,000}$$

$$\$ 7,680$$

- 1–82.** Fred and Winnie O’Callahan have put themselves on a very strict budget. Their goal at the end of the year is to buy a car **Excel** for \$14,000 in cash. Their budget includes the following per dollar: *LU 1-3(1)*

\$.40 food and lodging
 .20 entertainment
 .10 educational

Fred earns \$2,000 per month and Winnie earns \$2,500 per month. After 1 year will Fred and Winnie have enough cash to buy the car?

$$\begin{aligned} \$1.00 - \$0.70 &= \$0.30 \text{ (savings per \$1.00)} \\ \$2,000 \times 12 &= \$24,000 \\ \$2,500 \times 12 &= \$30,000 \\ \$54,000 \times \$0.30 &= \$16,200 \text{ (1 year)} \quad \text{Yes.} \end{aligned}$$

- 1–83.** Jill and Frank decided to take a long weekend in New York. City Hotel has a special getaway weekend for \$79.95. The price is per person per night, based on double occupancy. The hotel has a minimum two-night stay. For this price, Jill and Frank will receive \$50 credit toward their dinners at City’s Skylight Restaurant. Also included in the package is a \$3.99 credit per person toward breakfast for two each morning.

Since Jill and Frank do not own a car, they plan to rent a car. The car rental agency charges \$19.95 a day with an additional charge of \$.22 a mile and \$1.19 per gallon of gas used. The gas tank holds 24 gallons.

From the following facts, calculate the total expenses of Jill and Frank (round all answers to nearest hundredth or cent as appropriate). Assume no taxes. *LU 1-3(1)*

Car rental (2 days):		Dinner cost at Skylight	\$182.12
Beginning odometer reading	4,820	Breakfast for two:	
Ending odometer reading	4,940	Morning No. 1	24.17
Beginning gas tank: $\frac{3}{4}$ full		Morning No. 2	26.88
Gas tank on return: $\frac{1}{2}$ full		Hotel room	\$ 79.95
Tank holds 24 gallons			

$$\begin{aligned} \$79.95 \times 2 &= \$159.90 \times 2 &= \$319.80 \\ \$182.12 & & \\ \underline{- 50.00} & & 132.12 \\ \$132.12 & & \end{aligned}$$

$$\begin{aligned} & \$24.17 \\ \text{Breakfast No. 1: } & \underline{- 7.98} & 16.19 \\ & \$16.19 \end{aligned}$$

$$\begin{aligned} & \$26.88 \\ \text{Breakfast No. 2: } & \underline{- 7.98} & 18.90 \\ & \$18.90 \end{aligned}$$

$$\begin{aligned} 2 \times \$19.95 & & 39.90 \\ \$0.22 \times 120 (4,940 - 4,820) & & 26.40 \\ \frac{1}{4} \times 24 = 6 \text{ gallons} \times \$1.19 & & 7.14 \\ & & \underline{ 7.14} \\ & & \$560.45 \end{aligned}$$

SUMMARY PRACTICE TEST

1. Translate the following verbal forms to numbers and add. (*pp. 4, 11*) *LU 1-1(1), LU 1-2(1)*
 - a. Four thousand, eight hundred thirty-nine and nine tenths 4,839.9
 - b. Seven million, twelve 7,000,012.0
 - c. Twelve thousand, three hundred ninety-two 12,392.0

$$\underline{ 7,017,243.9}$$

2. Round the following numbers. (p. 6) LU 1-1(2)

Nearest ten **Round all the way**
 a. 68 **70** b. 14,821 **10,000**

3. Estimate the following actual problem by rounding all the way, work the actual problem, and check by adding each column of digits separately. (pp. 7, 11) LU 1-1(2), LU 1-2(1)

Actual	Estimate	Check
1,886	2,000	12
9,411	9,000	18
+ 6,395	+6,000	15
<u>17,692</u>	<u>17,000</u>	<u>16</u>
		<u>17,692</u>

4. Estimate the following actual problem by rounding all the way and then do the actual multiplication. (pp. 7, 12) LU 1-1(2), LU 1-2(3)

Actual	Estimate
8,843	9,000
× 906	× 900
<u>53 058</u>	<u>8,100,000</u>
<u>79 58 70</u>	
<u>8,011,758</u>	

5. Divide the following and check the answer by multiplication. (p. 14) LU 1-2(4)

	Check
379 R19	379
39)14,800	× 39
<u>11 7</u>	<u>3411</u>
<u>3 10</u>	<u>1137</u>
<u>2 73</u>	<u>14,781</u>
<u>370</u>	<u>19</u>
<u>351</u>	<u>14,800</u>
<u>19</u>	

6. Sam Song plans to buy a \$16,000 Ford Focus with an interest charge of \$4,000. Sam figures he can afford a monthly payment of \$400. If Sam must pay 40 equal monthly payments, can he afford the Ford Focus? (pp. 11, 14) LU 1-2(1), LU 1-2(4)
 $\$16,000 + \$4,000 = \$20,000 \div 40 = \500 No.
7. Lester Hal has the oil tank at his business filled 20 times per year. The tank has a capacity of 200 gallons. Assume (a) the price of oil fuel is \$3 per gallon and (b) the tank is completely empty each time Lester has it filled. What is Lester's average monthly oil bill? Complete the following blueprint aid for dissecting and solving the word problem. (pp. 8, 12, 14) LU 1-1(3), LU 1-2(3, 4)

	The facts	Solving for?	Steps to take	Key points
BLUEPRINT	Tank filled 20 times per year. Tank holds 200 gallons. Cost is \$3 per gallon.	Average monthly oil bill.	Total gallons used × Price per gallon = Total cost of oil.	Average cost is total cost divided by 12 months in a year.

Steps to solving problem

- | | |
|---|---|
| 1. Calculate the total number of gallons. | $200 \text{ gallons} \times 20 = 4,000 \text{ gallons}$ |
| 2. Calculate total cost of oil. | $4,000 \text{ gallons} \times \$3 = \$12,000$ |
| 3. Calculate the average monthly bill. | $\$12,000 \div 12 = \$1,000$ |

8. Add the following by translating the verbal form to the decimal equivalent. (pp. 4, 17) LU 1-1(1), LU 1-3(1)

Three hundred thirty-eight and seven hundred five thousandths	338.705
Nineteen and fifty-nine hundredths	19.590
Five and four thousandths	5.004
Seventy-five hundredths	.750
Four hundred three and eight tenths	<u>403.800</u>
	767.849

9. Rearrange the following decimals and add. (p. 17) LU 1-3(1)

$$\begin{array}{r}
 5.93, \quad 11.862, \quad 284.0382, \quad 88.44 \quad 5.9300 \\
 11.8620 \\
 284.0382 \\
 88.4400 \\
 \hline
 390.2702
 \end{array}$$

10. Subtract the following and round to the nearest tenth. (p. 17) LU 1-3(1)

$$13.111 - 3.872 = 9.239 = 9.2$$

11. Multiply the following and round to the nearest hundredth. (p. 18) LU 1-3(1)

$$7.4821 \times 15.861 = 118.67358 = 118.67$$

12. Divide the following and round to the nearest hundredth. (p. 18) LU 1-3(1)

$$203,942 \div 5.88 = 34,684.013 = 34,684.01$$

Complete the following by the shortcut method. (p. 19) LU 1-3(3)

13. $62.94 \times 1,000 = 62,940$

14. $8,322,249.821 \times 100 = 832,224,982.1$

15. The average pay of employees is \$795.88 per week. Lee earns \$820.44 per week. How much is Lee's pay over the average? (p. 17) LU 1-3(1)

$$\$820.44 - \$795.88 = \$24.56$$

16. Lowes reimburses Ron \$.49 per mile. Ron submitted a travel log for a total of 1,910.81 miles. How much will Lowes reimburse Ron? Round to the nearest cent. (p. 18) LU 1-3(1)

$$$.49 \times 1,910.81 = \$936.30$$