Chapter 2

Self-Test

Take this test as you would take a test in class. You will need a calculator. Then use the Selected Answers section in the back of the book to check your work.

1 Multiple Choice If $x = 3$ and $y = 4$, then $5x + 7y$ is C, $5 \cdot 3 + 7 \cdot 4 = 15 + 28 = 43$
A 22. B 33 C 43. D 144

2 Find three negative solutions to the inequality $c > -5$. Answers vary Sample $c = -4.5$, $c = -3$, $c = -0.007$

3 True or False One solution to $(4x)^2 = 64$ is $x = 4$. Justify your answer false, $(4 \cdot 4)^2 = 16^2 = 256$

In 4 and 5, evaluate the expression when $a = 2$ and $b = 5$.

4. $\frac{2a + 4b}{a + 2b}$ $\frac{2 \cdot 2 + 4 \cdot 5}{2 + 2 \cdot 5} = \frac{24}{12} = 2$

5 $9 + ab$ $9 + 2 \cdot 5 = 19$

In 6–8, translate each phrase into a numerical or algebraic expression

6 the product of 12 and x $12x$

7. 12 less than y $y - 12$

8 ten divided by the sum of a and b $\frac{10}{a + b}$

In 9–11, three instances of a pattern are given. Describe the pattern using variables

9 Use one variable. 9–11 See margin

$(5 + 7) \cdot 6 = 5 \cdot 6 + 7 \cdot 6$

$(5 + 7) \cdot 9 = 5 \cdot 9 + 7 \cdot 9$

$(5 + 7) \cdot 3 = 5 \cdot 3 + 7 \cdot 3$

10 Use two variables

$13 + (4.2 + 3.4) = 13 + (3.4 + 4.2)$

$13 + (100 + -1) = 13 + (-1 + 100)$

$13 + \left(3\frac{1}{2} + 4\frac{1}{2}\right) = 13 + \left(4\frac{1}{2} + 3\frac{1}{2}\right)$

11 Use one variable

If Trevor works 8 hours, he is paid $8 \cdot 18.50$ dollars

If Trevor works 16 hours, he is paid $16 \cdot 18.50$ dollars.

If Trevor works 40 hours, he is paid $40 \cdot 18.50$ dollars

In 12 and 13, give two instances of each pattern

12 $x + y + x = 2x + y$ 12–13 See margin

13. When Anica is A years old, her father is $A + 27$ years old

In 14–16, find a solution to the sentence.

14. $4x = 36$ $9 \cdot 4 = 36$, $x = 9$

15. $-12 < y < -11$ Answers vary. Sample: $y = -11.5$

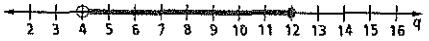
16 $99 - t = 94$ $99 - 5 = 94$, $t = 5$

In 17 and 18, graph all solutions to the sentence

17 $m \geq 1$ 17–18 See margin.

18. $-2 < t \leq 5$

19 The solutions to what sentence are graphed below? $4 < q \leq 12$



20 As a promotion on a customer's birthday, a store offers a special 10% discount on any item purchased A formula for the cost C is $C = P - 0.10P$, where P is the original price of the item Calculate C if P is \$249. See margin

Additional Answers

9 $(5 + 7) \cdot n = 5n + 7n$

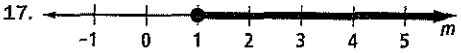
10 $13 + (x + y) = 13 + (y + x)$

11 If Trevor works t hours, he is paid $t \cdot 18.50$ dollars.

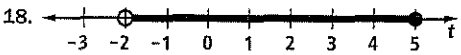
12 Answers vary Sample: $5 + 2 + 5 = 2 \cdot 5 + 2 = 12$, $7 + 8 + 7 = 2 \cdot 7 + 8 = 22$

13 Answers vary Sample When Anica is 10 years old, her father is $10 + 27 = 37$ years old, when Anica is 12 years old, her father is $12 + 27 = 39$ years old

17.



18.



20 $C = 249 - 0.10 \cdot 249 = 249 - 24.9 = \$224.10$

Chapter 2

Self-Test

Feedback and correction, along with the opportunity for practice, are necessary for the development of mathematical competence The Self-Test provides the opportunity for feedback and correction; the Chapter Review provides additional opportunities for practice. We cannot overemphasize the importance of these end-of-chapter materials. It is at this point that the material "gels" for many students, allowing them to solidify skills and understanding. In general, student performance should be markedly improved after these pages.

Assign the Self-Test as a one-night assignment Worked-out solutions for all questions are in the Selected Answers section of the student book. Encourage students to take the Self-Test honestly, grade themselves, and then be prepared to discuss the test in class.

Advise students to pay special attention to those Chapter Review questions (pages 125–129) that correspond to the questions they missed on the Self-Test.

Additional Answers

21 $P = 39 + 24(5 - 1) = 39 + 24 \cdot 4 =$ 135 cents

22. 11.5 oz rounds up to 12 oz; $P =$ $39 + 24(12 - 1) = 39 + 24 \cdot 11 =$ 303 cents = 3 dollars and 3 cents

23. Formulas for cells:
B2 = 10+(2*A2); B3 = 10+(2*A3); B4 = 10+(2*A4); B5 = 10+(2*A5); B6 = 10+(2*A6); B7 = 10+(2*A7), B8 = 10+(2*A8), B9 = 10+(2*A9); B10 = 10+(2*A10), B11 = 10+(2*A11)

	A	B
1	Number of Chores	Amount Earned ($)
2	1	12
3	2	14
4	3	16
5	4	18
6	5	20
7	6	22
8	7	24
9	8	26
10	9	28
11	10	30

24a The numbers in Column B are the squares of the numbers in Column A, Sample B3 =A3*A3

24b The numbers in Column C are the sum of the numbers in Columns A and B, Sample C5: =A5+B5

24c. B4: =A4*A4 = 11 × 11 = 121, C4 =A4+B4 = 121 + 11 = 132

25. Square of Leg 1 = $39^2 = 1{,}521$; Square of Leg 2 = $80^2 = 6{,}400$, Sum of squares = square of hypotenuse = 6,400 + 1,521 = 7,921; Hypotenuse = $\sqrt{7{,}921} = 89$

In 21 and 22, use the formula for first-class mail postage in 2006: $P = 39 + 24(n - 1)$. P is the postage in cents and n is the weight in ounces of the mail, rounded up to the nearest ounce

21–22 See margin.

21 If $n = 5$, find P.

22. Find the cost in dollars and cents of mailing an 11.5-ounce letter.

23. Gloria has a job doing chores for a neighbor after school. She earns $10 plus $2 for each chore she completes. Determine a formula and create a spreadsheet that displays the total amount of money she would earn for completing 1, 2, 3, , 10 chores. See margin

24. a. Find a formula for Column B in terms of Column A. 24a–c See margin.

◇	A	B	C
1	12	144	156
2	7	49	56
3	91	8281	8372
4	11		

b. Find a formula for Column C in terms of Columns A and B.

c. What values belong in cells B4 and C4?

25. Find the length of the hypotenuse of a right triangle if its legs have lengths 39 and 80. See margin.

26 A 7th-grade class is making costumes for a play using egg cartons for monster noses. Complete the table. See margin.

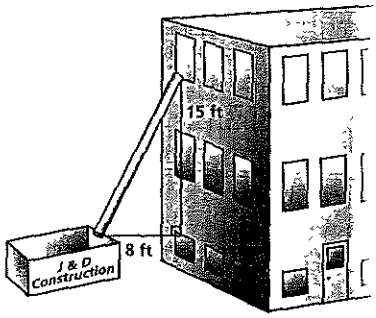
Number of Egg Cartons	Number of Monster Noses
1	3
2	6
3	9
4	?
8	?
n	?

27 For each set of three numbers, state whether the set is a Pythagorean triple.

a. 10, 24, 26 It is, $10^2 + 24^2 = 676 = 26^2$

b. 8, 11, 14 It is not, $8^2 + 11^2 = 185$, $14^2 = 196$

28 A construction firm is rehabilitating an old building for a new community center. To facilitate removal, they will install a trash chute out of the third-floor window into a bin below in the street. How long should the trash chute be?



The length of the chute is the hypotenuse of a right triangle with legs 8 feet and 15 feet. Thus, the chute needs to be $\sqrt{8^2 + 15^2} = 17$ feet.

Additional Answers

26.

Number of Egg Cartons	Number of Monster Noses
1	3
2	6
3	9
4	12
8	24
n	$3n$

Chapter 2 Chapter Review

SKILLS
PROPERTIES
USES
REPRESENTATIONS

SKILLS Procedures used to get answers

OBJECTIVE A Evaluate algebraic expressions given the values of all variables in them. (Lesson 2-3)

1 If $m = 3$, then $7m =$? 21

2. If $a = 18$, evaluate $a + 4(a + 1)$. 94

3. Find the value of $4z^2$ when $z = 10$ 400

4 Find the value of $\frac{a+1}{b}$ when $a = 8$ and $b = 3$ 3

5. Find the value of $2(s - t)$ when $s = 10$ 6 and $t = 2$ 17 2

6 Find the value of $p^2 + 3^r$ when $p = 5$ and $r = 2$ 34

7. Give the exact value of $\frac{c+3}{c+d}$ for $c = 2$ and $d = 4$ $\frac{5}{6}$

8 Evaluate $(3 + ((2x + 1) + x(x + 2)))$ when $x = 5$. 49

OBJECTIVE B Find solutions to equations and inequalities involving simple arithmetic (Lesson 2-7)

9 Multiple Choice Which of these is a solution to $5x + 11 = 106$? C

A 9 B 21 2 C 19 D 117

10 Multiple Choice Which of these is a solution to $m > -3$? A

A -2 B -3 C -4 D -5

11 Find the solution to $4x = 20$ $x = 5$

12 Find the solution to $150 - r = 148$ $r = 2$

13. What is the solution to $p + 5 = 19$? $p = 14$

14. What value of m works in $30 = m \cdot 6$? $m = 5$

15. Is -2 a solution to $x < -2$? Is -2 a solution to $x \leq -2$? Explain your answers See margin

16 Find two integer solutions to $16 < y \leq 18$ $y = 17, y = 18$

OBJECTIVE C Write a numerical or algebraic expression for an English expression involving arithmetic operations. (Lesson 2-2)

In 17 and 18, translate into mathematical symbols

17 one hundred seventy-six less than three thousand, eight hundred forty-nine $3{,}849 - 176$

18 the product of four and twenty-two, decreased by eleven and a half $(4 \cdot 22) - 11.5$

In 19 and 20, translate into an algebraic expression.

19. a number divided by ten, then the quotient decreased by two $\frac{x}{10} - 2$

20. a number times six and eight tenths 6 $8n$

PROPERTIES Principles behind the mathematics

OBJECTIVE D Find the length of the hypotenuse of a right triangle using the Pythagorean Theorem. (Lesson 2-5)

In 21 and 22, the two legs of a right triangle are given Calculate the hypotenuse

21. 21, 28 35

22 5, 12 13

Additional Answers

15 Answers vary Sample: -2 is not a solution because the -2 is not less than -2; -2 is a solution because $-2 = -2$ and so is also less than or equal to -2

Chapter 2

Chapter Review

The main objectives for the chapter are organized in the Chapter Review under the four types of understanding this book promotes. Skills, Properties, Uses, and Representations (SPUR)

Whereas end-of-chapter material may be considered optional in some texts, in *UCSMP Transition Mathematics* we have selected these objectives and questions with the expectation that they will be covered Students should be able to answer these questions with about 85% accuracy after studying the chapter.

You may assign these questions over a single night to help students prepare for a test the next day, or you may assign the questions over a two-day period If you work the questions over two days, then we recommend assigning the evens for homework for the first night so that students get feedback in class the next day, then assigning the odds the night before the test, because the answers are provided to the odd-numbered questions in the Selected Answers at the back of the book.

It is effective to ask students which questions they still do not understand and use the day or days as a total class discussion of the material that the class finds the most difficult

Resources

- Assessment Resources: Chapter 2 Test, Forms A–D, Chapter 2 Test, Cumulative Form

Technology Resources

Teacher's Assessment Assistant, Ch 2
Electronic Teacher's Edition, Ch. 2

Additional Answers

26. (24, 143, 145), (48, 140, 148), (72, 135, 153), (96, 128, 160)

27. (29, 420, 421), (112, 384, 400), (240, 418, 482)

28. $t + 2t = 3t$

29 $x + y - z = y + x - z$

30 $-(m - n) = n - m$

31 $(p + q) \cdot (p - q) = p^2 - q^2$

32. Answers vary. Sample. $4 \cdot 1 + 2 \cdot (2 + 3) = 4 \cdot 1 + 2 \cdot 2 + 2 \cdot 3 = 14$, $4 \cdot 1 + 2 \cdot 4 + 2 \cdot 3 = 4 \cdot 1 + 2 \cdot 4 + 2 \cdot 3 = 18$

33. Answers vary Sample $1 \cdot (2 \cdot 3) = 1 \cdot 2 \cdot 3 = 6$, $2 \cdot (4 \cdot 5) = 2 \cdot 4 \cdot 5 = 40$, $3 \cdot (7 \cdot 8) = 3 \cdot 7 \cdot 8 = 168$

34 $1 \cdot 2 + 3 = 2 \cdot 1 + 3 = 5$, $4 \cdot 5 + 10 = 5 \cdot 4 + 10 = 30$

35. One stanza of a poem contains $6 \cdot 1 = 6$ lines and $60 \cdot 1 = 60$ syllables; Two stanzas of a poem contain $6 \cdot 2 = 12$ lines and $60 \cdot 2 = 120$ syllables, Ten stanzas of a poem contain $6 \cdot 10 = 60$ lines and $60 \cdot 10 = 600$ syllables

23. **Multiple Choice** A right triangle has a hypotenuse of 25 Which of the following could be the length of its legs? A

A 7, 24 B 9, 16

C 10, 20 D 12, 15

In 24 and 25, show whether the set of numbers given could be sides of a right triangle.

24. 9, 11, 15 no, $9^2 + 11^2 = 202$, $15^2 = 225$

25. 20, 48, 52 yes, $20^2 + 48^2 = 2{,}704 = 52^2$

In 26 and 27, use the expressions $m^2 - n^2$, $2mn$, and $m^2 + n^2$ to generate Pythagorean triples. 26–27 See margin

26 Generate all combinations of triples if $m = 12$ and $0 < n < 5$

27. Generate three sets of triples using $m > 10$, $n < 20$

OBJECTIVE E Given instances of a pattern, write a description of the pattern using variables (Lesson 2-1)

In 28–31, three instances of a pattern are given Describe the pattern using variables 28–31 See margin.

28 Use one variable

$\frac{8}{5} + 2 \cdot \frac{8}{5} = 3 \cdot \frac{8}{5}$

$96 + 2 \cdot 96 = 3 \cdot 96$

$3\,14 + 2 \cdot 3.14 = 3 \cdot 3\,14$

29. Use three variables

$54 + 19 - 8 = 19 + 54 - 8$

$10.26 + 5\,3 - 2 = 5\,3 + 10.26 - 2$

$13\% + 78\% - 1\% = 78\% + 13\% - 1\%$

30. Use two variables

$-(5 - 4) = 4 - 5$

$-(7 - 5) = 5 - 7$

$-(2 - 8) = 8 - 2$

31 Use two variables.

$(1{,}000 + 3) \cdot (1{,}000 - 3) = 1{,}000^2 - 3^2$

$(5 + 2) \cdot (5 - 2) = 5^2 - 2^2$

$(14 + 0) \cdot (14 - 0) = 14^2 - 0^2$

OBJECTIVE F Give instances of a pattern described with variables. (Lesson 2-1)

32. Give two instances of the pattern

$4a + 2(b + c) = 4a + 2b + 2c$ See margin.

33. Give three instances of the pattern

$a(b \cdot c) = a \cdot c \cdot b$ See margin

34 Give two instances of the pattern

$xy + z = yx + z$ See margin

35 Stanzas of a poem contain $6a$ lines and $60a$ syllables Give three instances of this pattern See margin

USES Applications of mathematics in real-world situations

OBJECTIVE G Given instances of a real-world pattern, write a description of the pattern using variables (Lesson 2-1)

36 Three instances of a pattern are given Describe the pattern using variables

One octopus has 8 tentacles.

Two octopuses have $2 \cdot 8$ tentacles.

Three octopuses have $3 \cdot 8$ tentacles

t octopuses have $8t$ tentacles

Notes

37 Four instances of a pattern are given Describe the pattern using variables.

If a call is 25 minutes long, the cost of the call is 99¢ + 25 · 15¢

If a call is 21 minutes long, the cost of the call is 99¢ + 21 · 15¢.

If a call is 18 minutes long, the cost of the call is 99¢ + 18 · 15¢

If a call is 16 minutes long, the cost of the call is 99¢ + 16 · 15¢

See margin

OBJECTIVE H Calculate the value of a variable given the values of other variables in a formula (Lesson 2-4)

38 One general rule to estimate hiking time is 30 minutes for every mile plus 6 minutes for every 200-foot increase in elevation A formula describing this rule is $T = 30m + \frac{6e}{200}$, where m is the number of miles hiked and e is the elevation increase in feet. What is the estimated time for hiking 3 miles if the elevation increases by 800 feet? 114 minutes

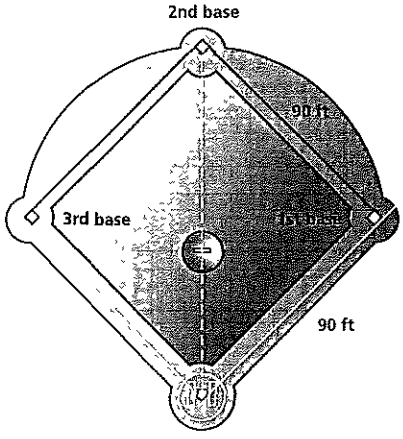
39. The formula $P = 2\ell + 2w$ relates the perimeter P of a rectangle to its length ℓ and width w. Find the perimeter of a rectangle with dimensions 7 feet by 9 feet 32 feet

40. A general rule for finding a man's shoe size in the United States is to multiply the length of his foot in inches by 3 and then subtract 22 A formula describing this rule is $S = 3\ell - 22$, where S is U S men's shoe size and ℓ is the length of a man's foot in inches Nate's foot is 11 inches long Find his shoe size 11

41. The formula $C = 0\,6n + 4$ estimates the temperature in degrees Celsius when n is the number of cricket chirps in 15 seconds If a cricket chirps 25 times in 15 seconds, what is an estimate for the temperature? 19°C

OBJECTIVE I Use the Pythagorean Theorem to find distances in real situations. (Lesson 2-5)

42 **Multiple Choice** On a baseball field, the diamond is actually a square that is 90 feet on each side



If a catcher at home plate is trying to throw out a player stealing 2nd base, about how far does he or she have to throw? B

A 100 feet B 125 feet

C 150 feet D 180 feet

43. Elena rode her bike 5 blocks west and 3 blocks north when she suddenly got a flat tire Fortunately, this happened right by a diagonal path going straight to her home. Explain how she can determine how far she has to walk home

See margin

Additional Answers

37 If a given call is x minutes long, the cost of the call is 99¢ + x · 15¢.

43 She has walked the two legs of a right triangle, by the Pythagorean Theorem she needs to walk about 5.83 blocks.

Assessment

Evaluation The *Assessment Resources* provides five forms of the Chapter 2 Test Forms A and B present parallel versions in a short-answer format. Form C consists of five short response questions that cover all of the SPUR objectives from Chapter 2 Form D offers performance assessment that covers a subset (or even just one) of the SPUR objectives for the chapter. The fifth type of test is a Chapter 2 Test, Cumulative Form About 50% of this test covers Chapter 2, and the remaining 50% covers the previous chapter.

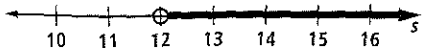
Of course, you can prepare your own chapter test If so, we suggest that it be similar to the Self-Test. Whichever you choose, here are our recommendations for assigning a letter grade: 85–100 = A, 72–84 = B, 60–71 = C; 50–59 = D.

Feedback After students have taken the test for Chapter 2 and you have scored the results, return the tests to students for discussion Class discussion on the questions that caused trouble for most students can be very effective in identifying and clarifying misunderstandings. You might want to have them note the items they missed and work either in groups or at home to correct them It is important for students to receive feedback on every chapter test, and we recommend that students see and correct their mistakes before proceeding too far into the next chapter.

Suggestions for Assignment Assign Lesson 3-1 for homework the evening of the test It gives students work to do after they have completed the test and keeps the class moving If you do not do this, you may cover one less chapter over the course of the year.

Additional Answers

49



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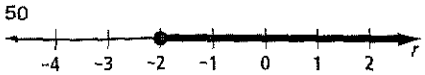

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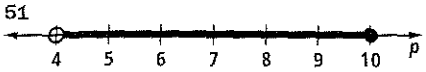

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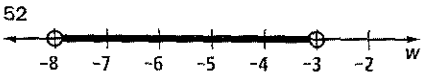


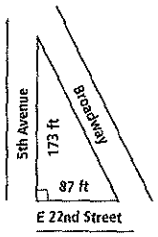
53.

	A	B	C	D
1	Player	Number of Hits	Number of At bats	Batting Average
2	Wesley	10	33	0 303
3	Crystal	8	30	0 267
4	Donna	11	40	0 275
5	Ryan	12	29	0 414
6	Juana	7	28	0 250
7	Dillan	4	16	0 250
8	Colin	13	40	0 325
9	Madeline	7	20	0 350
10	Matt	18	38	0 474
11	Jorge	14	60	0 233
12	Team	104	334	0 311

54

1	Person	Hours of overtime worked	Total amount earned ($)
2	Sapana	1	1285 23
3		2	1320.46
4		3	1355.69
5		4	1390 92
6		5	1426 15
7		6	1461.38
8		7	1496 61
9		8	1531.84
10		9	1567.07
11		10	1602 30
12		11	1637.53
13		12	1672.76
14		13	1707 99
15		14	1743.22
16		15	1778.45

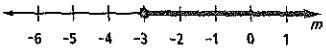
44. The Flatiron Building in Manhattan was designed by the famous architect Daniel Burnham Because it was built at the intersection of three streets, its "footprint" is a right triangle as shown below How far would you walk along Broadway to get from one end of the building to the other? about 194 ft



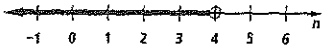
REPRESENTATIONS Pictures, graphs, or objects that illustrate concepts

OBJECTIVE J *Graph solutions to simple inequalities. (Lesson 2-8)*

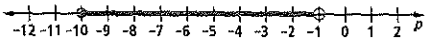
In 45–48, the solutions to what sentences are graphed?

45 

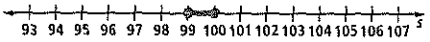
$m \geq -3$

46. 

$n < 4$

47. 

$-10 \leq p < -1$

48. 

$99 \leq s \leq 100$

In 49–52, graph all solutions to the sentence on a number line. 49–52 See margin

49 $s > 12$

50. $-2 \leq r$

51. $4 < p \leq 10$

52 $-3 > w > -8$

OBJECTIVE K *Use a calculator or spreadsheet to construct formulas and apply them to real-life situations. (Lesson 2-6)*

53 In baseball games played last year, Wesley had 10 hits and 33 at-bats Crystal had 8 hits and 30 at-bats Donna had 11 hits and 40 at-bats Ryan had 12 hits and 29 at-bats Juana had 7 hits and 28 at-bats Dillan had 4 hits and 16 at-bats Colin had 13 hits and 40 at-bats Madeline had 7 hits and 20 at-bats Matt had 18 hits and 38 at-bats, and Jorge had 14 hits and 60 at-bats A player's batting average is equal to the number of hits divided by the number of at-bats Design a spreadsheet that will display this information and find the batting average of each player, the total number of hits of the team, the total number of at-bats of the team, and the overall team batting average Make sure to use formulas to allow the averages to be automatically updated if the number of hits or number of at-bats of a player is adjusted See margin

54. Sapana earns $1,250 per week for a 40-hour week plus $35.23 per hour for each hour of overtime April earns $1,000 per week for a 40-hour week plus $31 67 per hour for each hour of overtime Jamal earns $1,175 per week for a 40-hour week plus $32 65 per hour for each hour of overtime Jared earns $895 per week for a 40-hour week plus $29.48 per hour for each hour of overtime Create a spreadsheet that displays the total pay if each person works 1 to 15 hours of overtime in a week Make sure to use formulas to allow the total pay to automatically update if the weekly pay or overtime pay is adjusted See margin

17	April	1	1031 67
18		2	1063 34
19		3	1095.01
20		4	1126 68
21		5	1158 35
22		6	1190.02
23		7	1221.69
24		8	1253.36
25		9	1285.03
26		10	1316 70
27		11	1348 37
28		12	1380 04
29		13	1411.71

30		14	1443.38
31		15	1475.05
32	Jamal	1	1207.65
33		2	1240.30
34		3	1272.95
35		4	1305.60
36		5	1338 25
37		6	1370.90
38		7	1403.55
39		8	1436.20
40		9	1468.85
41		10	1501.50
42		11	1534.15

OBJECTIVE L Represent a relationship between two variables using a table. (Lesson 2-1)

55. The table shows the cost of soda if cans are purchased at a machine. Complete the second column. What is the formula for the total cost C in terms of n, the number of cans?

Number of Cans	Total Cost ($)
1	?
2	1 50
3	2 25
4	3 00
5	?
n	?

56 In this table, numbers in Column 2 are to increase by 2 for every increase of 1 in Column 1 numbers Complete the table

Column 1	Column 2
1	5
2	?
3	?
4	?
5	?
100	?
n	?

In 57 and 58, use the table below.

Number of Boxes of Donuts	Number of Donuts
1	12
2	?
3	?
4	?
10	?
n	?

57. a. Complete the table See margin.
b Describe this pattern in words

58. What value of n results in 24,000 donuts? 2,000

In 59 and 60, as Column 1 numbers increase by 1, Column 2 numbers increase by 3.

59 Complete the table See margin.

Column 1	Column 2
1	10
2	13
3	16
4	?
5	?
9	?
14	?
n	?

60. a. Translate the expression at the bottom of Column 2 into words
b. If Column 1 has an entry of 23, what will be the Column 2 entry? 76

55 $C = 0.75n$

Number of Cans	Total Cost (in $)
1	0.75
2	1 50
3	2 25
4	3.00
5	3 75
n	0 75n

56.

Column 1	Column 2
1	5
2	7
3	9
4	11
5	13
100	203
n	$2n + 3$

60a the product of a number and three, plus seven

54 (continued)

43		12	1566 80
44		13	1599.45
45		14	1632.10
46		15	1664.75
47	Jared	1	924.48
48		2	953.96
49		3	983.44
50		4	1012.92
51		5	1042.40
52		6	1071 88
53		7	1101.36

54		8	1130.84
55		9	1160.32
56		10	1189 80
57		11	1219.28
58		12	1248 76
59		13	1278.24
60		14	1307.72
61		15	1337.20

57a.

Number of Boxes of Donuts	Number of Donuts
1	12
2	24
3	36
4	48
10	120
n	12n

57b n boxes of donuts contain 12n donuts

59.

Column 1	Column 2
1	10
2	13
3	16
4	19
5	22
9	34
14	49
n	$3n + 7$