

Ch 1 Homework Assignment Sheet			
Assignment Number	Due Date	Assignment	Completed on Time?
1	1.1	Txtbk pg. 5 #3-42(Div 3) & pg.7 #56-64(even)	
2	1.2	Txtbk pg. 10 #3-30(Div 3)	
3	1.3	Txtbk pg. 18 #4-18	
4		WKS 1.1-1.3	
<b>Ch 1 Quiz 1(1.1-1.3)</b>			
5	1.4	Txtbk pg. 24 #3-11(o),17-33(o),49-57(o)	
6	1.5	Txtbk pg. 33 #24-32 (all)	
7		WKS 1.4/1.5	
<b>Ch 1 Quiz 2(1.4 &amp; 1.5)</b>			
8	1.6	Txtbk pg. 38 #3-21(o)	
9	1.7	Txtbk pg. 46 #3,6,10,11,12,21-30	
10		WKS 1.6/1.7	
<b>Ch 1 Quiz 3(1.6 &amp; 1.7)</b>			
11		Ch 1 Test B (Practice Test)	
<b>Ch 1 Test</b>			



**1.1**  
LESSON  
**Practice B**

For use with pages 2-7

**Evaluate the expression.**

1.  $y + 12$  when  $y = 29$

2.  $47 - x$  when  $x = 38$

3.  $0.8a$  when  $a = 7.5$

4.  $12.5 + m$  when  $m = 7.6$

5.  $r(4.6)$  when  $r = 8.1$

6.  $6.25 \div g$  when  $g = 2.5$

7.  $\frac{0.9}{x}$  when  $x = 54$

8.  $\frac{d}{62}$  when  $d = 3.1$

9.  $\frac{7}{4} \cdot t$  when  $t = \frac{8}{7}$

10.  $r(8.3)$  when  $r = 10.2$

11.  $w + \frac{5}{2}$  when  $w = \frac{1}{2}$

12.  $\frac{2.4}{n}$  when  $n = 12$

**Write the power in words and as a product.**

13.  $8^7$

14.  $(0.1)^4$

15.  $x^5$

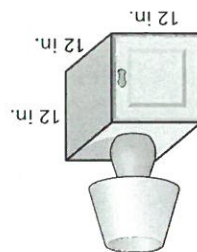
**Evaluate the power.**

16.  $9^2$

17.  $2^6$

18.  $(0.4)^3$

- 25. Flower Arranging** You are creating a flower arrangement for a friend. The total cost (in dollars) for one vase and  $f$  flowers is given by the expression  $8 + 2.5f$ . How much will it cost to make an arrangement with 8 flowers?
- 24. Sales Tax** An item costs  $c$  dollars and 6% sales tax is charged. The total cost including sales tax is given by the expression  $1.06c$ . You are buying a skateboard that costs \$75. What is the cost of the skateboard including sales tax?
- 23. Playing Cards** There are 52 cards in a standard deck of playing cards. You are combining decks of cards so that you can play a game with a large number of people. The expression  $52d$  represents the number of cards in  $d$  decks. If you combine 4 decks of cards, how many cards will you have altogether?
- 22. Side Table** A side table has interior storage space in the shape of a cube. What is the volume of the storage space if the interior length is 12 inches?



19.  $x^2$  when  $x = \frac{1}{5}$
20.  $m^4$  when  $m = 0.6$
21.  $2y^3$  when  $y = 4$

**Practice B**  
continued  
For use with pages 2-7

LESSON  
1.1

Name \_\_\_\_\_

Date \_\_\_\_\_

**LESSON**  
**1.2**  
**Practice B**

For use with pages 8–13

Evaluate the expression.

1.  $16 \div 8 \cdot 5$

2.  $7^2 - 24 \div 3$

3.  $5 + 1.2 \div 0.3$

4.  $18 \div 6 + 4 \cdot 3$

5.  $13 - 15 \div 5 + 9$

6.  $\frac{3}{2} \cdot 3^2 - 5$

7.  $8(6 - 2) + 4$

8.  $28 - 3(4 + 5)$

9.  $1.2 \cdot 5 - 6 \div 3$

10.  $(11 + 15) \div 13$

11.  $35 - 3^2 \cdot 2$

12.  $\frac{5}{4}(3 \cdot 20) - 17$

Evaluate the expression.

13.  $3x^4 - 5$  when  $x = 5$

14.  $8m^3 \div 6$  when  $m = 3$

15.  $200 - 3y^2$  when  $y = 8$

16.  $5c^2 - 2c$  when  $c = 9$

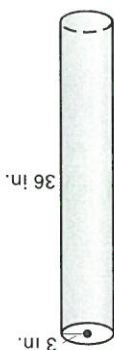
17.  $3 \cdot 18t^2$  when  $t = \frac{1}{3}$

18.  $\frac{4n}{42} + n$  when  $n = 6$

19.  $7(x + 5)$  when  $x = 10$

20.  $\frac{5a}{5a - 6}$  when  $a = 8$

21.  $\frac{4d^2}{d + 1}$  when  $d = 3$



- 26. Core Sample** Before a structure is built on a plot of land, it is sometimes necessary to test the surface beneath the plot of land to determine its integrity. So, it may be necessary to take a core sample which is cylindrical in shape. Find the volume of the core sample shown by using the expression  $\pi r^2 h$  where  $r$  is the radius (in inches) and  $h$  is the height (in inches) of the cylinder. Use 3.14 for  $\pi$ .

- 25. Crown Molding** You are decorating the perimeter of the ceiling of your living room with crown molding. The expression  $2x + 2y$  represents the total amount of molding you need where  $x$  is the width of the room (in feet) and  $y$  is the length of the room (in feet). Find the total amount of wood you need if the room is 11 feet wide and 10.5 feet long.

- 24. Painting** Three weeks ago, an art supply store started selling a paint kit for 75% of the original price. Now the kit is 15% off of the sale price. The expression  $0.75x - 0.15(0.75x)$  represents the current price of the paint kit where  $x$  is the kit's original price (in dollars). Find the current price of the kit if it originally cost \$48.

- 23. Tournament** During a bowling tournament, you bowled three games with scores of 110, 130, and 129, respectively. Your average bowling score is given by  $\frac{110 + 130 + 129}{3}$ . What is your average score?

- 22.** Was the expression evaluated correctly using the order of operations? If not, find and correct the error.
- $$80 - \frac{1}{3}(15)^2 = 80 - -5^2 = 80 - -25 = 55$$

**Practice B**  
continued

LESSON  
1.2

For use with pages 8–13

Name \_\_\_\_\_

Date \_\_\_\_\_

**LESSON**  
**1.3**  
**Practice B**

For use with pages 14–20

**Translate the verbal phrase into an expression.**

1. The difference of 9 and a number  $n$
2. The quotient of a number  $y$  and 22

3. The sum of 57 and a number  $b$
4.  $\frac{3}{2}$  of a number  $x$

5. 18 less than a number  $c$
6. 25 more than twice a number  $m$

7. The quotient of 8 and twice a number  $z$
8. The sum of 2 and the square of a number  $r$

**Write an expression for the situation.**

9. The amount of money you spent if you started with \$40 and now have  $d$  dollars

10. The total height of a 1-foot tall birdbath if it is placed on a base that is  $b$  feet tall

11. Each person's share of baseball cards if 4 people share  $c$  cards equally

12. Number of minutes in  $h$  hours

**Find the unit rate.**

13.  $\frac{5 \text{ video games}}{\$75}$

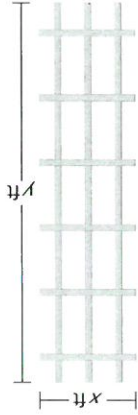
14.  $\frac{600 \text{ students}}{8 \text{ classes}}$

15.  $\frac{32 \text{ pencils}}{4 \text{ boxes}}$

Name \_\_\_\_\_

Date \_\_\_\_\_

- 19. Plant Trellis** You are building the wood trellis shown in the figure so that you can grow a vine up the side of your home. Write an expression for the total number of feet of wood needed to build the trellis. *Hint:* Write separate expressions for the number of feet of vertical pieces needed and the number of feet of horizontal pieces needed. Then find the total number of feet of wood needed if the trellis is 8 feet tall and 2 feet wide.



- 18. Car Trip** You are getting ready to make a 640-mile car trip. In general, your car can drive 160 miles on 5 gallons of gasoline. How many gallons of gasoline will you use for the trip? You started out with 4 gallons of gasoline in your car and gasoline is \$2.29 per gallon. How much money will you spend on gasoline on the trip?

- 17. Baseball** Last season, a baseball player scored 14 runs in 18 games. This season, the baseball player scored 12 runs in 15 games. Find the number of runs scored per game in each season. Round your answers to the nearest hundredth. Then identify the season in which the player scored more runs per game.

- 16. Candle Making** You are making candles for your friends. A mold for the candles costs \$22.50 and wax to make one candle costs \$5. Write an algebraic expression for the total cost of making  $x$  candles. You make 8 candles. Find the total cost.

**Practice B**  
For use with pages 14–20  
continued

LESSON  
1.3

Name \_\_\_\_\_

Date \_\_\_\_\_



**LESSON** 1.4  
**Practice B**  
*For use with pages 21–26*

**Write an equation or an inequality.**

1. The difference of a number  $c$  and 17 is more than 33.

2. The product of 3 and a number  $x$  is at most 21.

3. The sum of 14 and twice a number  $y$  is equal to 78.

4. The difference of 22 and the quotient of a number  $m$  and 4 is 54.

5. The sum of 7 and three times a number  $b$  is at least 12.

**Check whether the given number is a solution of the equation or inequality.**

6.  $6x + 7 = 25$ ; 3

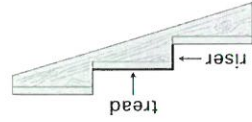
7.  $22 - 5c = 8$ ; 3

8.  $\frac{4}{b} - 7 = 1$ ; 36

9.  $7a + 4 \geq 20$ ; 2.7

10.  $4y - 3 > 12$ ; 4

11.  $\frac{3}{m} + 14 < 33$ ; 9



- 21. Staircase** When building a staircase, you need to be concerned with the height of the riser and the depth of the tread so that people can go up and down the stairs comfortably. One rule of thumb used to determine proper riser height and tread depth is that the sum of the tread depth (in inches) and twice the riser height (in inches) should equal 26 inches. Write an equation that models this situation. The riser height of a set of steps is 5 inches. What should the depth be?

- 20. Bracelets** You are making beaded bracelets for your friends. You want to use 30 beads for each bracelet and want to use no more than 145 beads. Write an inequality that models this situation. Can you make 4 bracelets?

- 19. Go-Carts** You and three of your friends are going to race go-carts. The last time you went, you had a coupon for \$3 off each admission and paid \$48 for the 4 admissions. What was the total price without the coupon? You pay the regular price this time and share it equally. How much does each person pay?

- 18. Computers** You are buying a new printer and a new scanner for your computer, and you cannot spend over \$150. The printer you want costs \$80. Write an inequality that describes the most that you can spend on the scanner and still stay within your budget. If you buy a scanner that costs \$75, will you remain within your budget?

15.  $\frac{m}{4} = 16$

16.  $2x - 1 = 15$

17.  $3x + 2 = 20$

12.  $x + 9 = 17$

13.  $y - 5 = 12$

14.  $8w = 48$

Solve the equation using mental math.

LESSON <b>1.4</b>
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**Practice B**  
continued  
For use with pages 21–26

Name \_\_\_\_\_

Date \_\_\_\_\_

**LESSON 1.5**  
**Practice B**  
*For use with pages 28–33*

**In Exercises 1 and 2, identify what you know and what you need to find out. You do *not* need to solve the problem.**

1. You are making cookies for a bake sale and need to make enough cookies to fill 24 boxes containing 6 cookies each. How many dozen cookies do you need to make?

2. The cellular phone plan you signed up for gives you 400 minutes a month for \$35 and charges \$.15 for each additional minute over 400 minutes. How long can you talk on the phone each month and stay within a budget of \$45?

**In Exercises 3 and 4, state the formula that is needed to solve the problem. You do *not* need to solve the problem.**

3. You invest \$200 into a savings account that earns 2% simple interest. How long will it take to earn \$50 in interest?

4. It takes you half an hour to travel 26 miles to work. What is your average speed?

5. **Sticker Collection** Your sticker collection consists of 175 stickers. Each sticker is either an animated cartoon character or an animal. There are 42 less stickers that are animated characters than stickers that are animals. Let  $x$  be the number of stickers that are animals. Which equation correctly models this situation?

- A.  $x - 42 = 175$
- B.  $x + (x + 42) = 175$
- C.  $x + (x - 42) = 175$

Name \_\_\_\_\_

Date \_\_\_\_\_

8. **Banking** You are going to open a certificate of deposit (CD) that earns simple interest. One bank offers a CD in which you must deposit \$500 for 3 years with 2% interest. Another bank offers a CD in which you must deposit \$250 for 4 years with 3% interest. Which CD will earn more interest?
7. **Camping** You are responsible for buying supplies for an upcoming camping trip. You can buy packages of stew that just need water added and then are heated. Each package costs \$4.95 and contains enough stew for 2 people. You need to buy enough packages so that you can have stew for 3 days of the trip. There will be 8 people on the trip. How many packages do you need? What is the total cost?
6. **Bookshelf** You installed a bookshelf on the wall to organize some of your books. The books that you absolutely want on the shelf weigh a total of  $6\frac{3}{4}$  pounds. The bookshelf can handle no more than 9 pounds. You plan on filling the rest of the shelf with your paperback books that each weigh about  $\frac{1}{8}$  pound. Assuming you won't run out of room, how many paperback books can you add to the shelf?

LESSON 1.5  
Practice B  
continued For use with pages 28–33

Name \_\_\_\_\_

Date \_\_\_\_\_

**LESSON 1.6**  
**Practice B**

For use with pages 35–41

Complete the sentence.

- The input variable is called the \_\_\_\_\_ variable.
- The output variable is called the \_\_\_\_\_ variable.

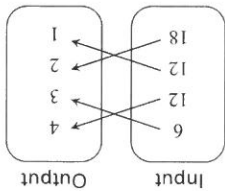
Tell whether the pairing is a function.

Input	Output
1	15
3	20
5	15
7	20

3.

Input	Output
5	5
6	5
7	5
8	5

4.



5.

Make a table for the function. Identify the range of the function.

6.  $y = 4x - 2$   
Domain: 1, 2, 3, 4

7.  $y = 0.1x + 3$   
Domain: 10, 20, 30, 40

8.  $y = \frac{1}{2}x + 2$   
Domain: 6, 7, 8, 9

Name \_\_\_\_\_

Date \_\_\_\_\_

**13. Baking** A baker has baked 10 loaves of bread so far today and plans on baking 3 loaves more each hour for the rest of his shift. Write a rule for the total number of loaves baked as a function of the number of hours left in the baker's shift. Identify the independent and dependent variables. How many loaves will the baker make if he has 4 hours left in his shift?

**12. Balloon Bunches** You are making balloon bunches to attach to tables for a charity event. You plan on using 8 balloons in each bunch. Write a rule for the total number of balloons used as a function of the number of bunches created. Identify the independent and dependent variables. How many balloons will you use if you make 10 bunches?

U.S. size	Australian size
5	3
6	4
7	5
8	6
9	7
10	8

**11. Shoe Sizes** The table shows men's shoe sizes in the United States and Australia. Write a rule for the Australian size as a function of the United States' size.

Input, $x$	Output, $y$
1	5
2	10
3	15
4	20

9. Write a rule for the function.

Input, $x$	Output, $y$
10	3
11	4
12	5
13	6

10.

**LESSON 1.6**  
**Practice B**  
For use with pages 35–41  
*continued*

Name \_\_\_\_\_ Date \_\_\_\_\_

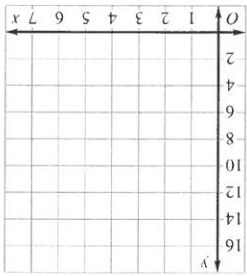
**LESSON 1.7**  
**Practice B**  
For use with pages 42–48

Name \_\_\_\_\_

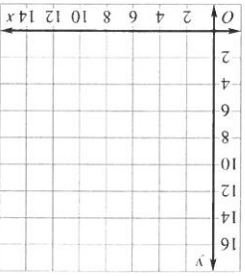
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Graph the ordered pairs.

1. (3, 4), (4, 7), (5, 10), (6, 13), (7, 16)



2. (2, 5), (6, 7), (4, 6), (12, 10), (10, 9)



Complete the input-output table for the function.

3.  $y = 3x + 2$

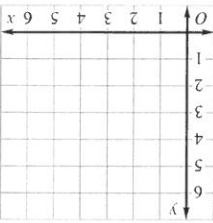
$y$				
$x$	0	1	2	3

4.  $y = 4x - 1$

$y$				
$x$	1	2	3	4

Graph the function.

5.  $y = 6 - x$



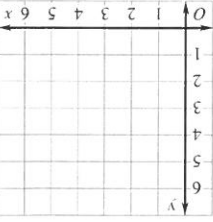
Domain: 6, 5, 4, 3, 2

7.  $y = 4x - 3$



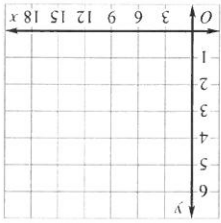
Domain: 1, 2, 3, 4, 5

8.  $y = 1.2x$

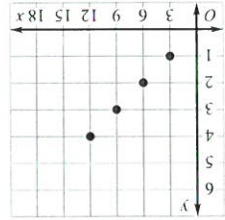


Domain: 1, 2, 3, 4, 5

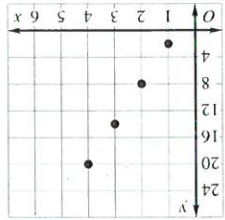
6.  $y = \frac{3}{4}x$



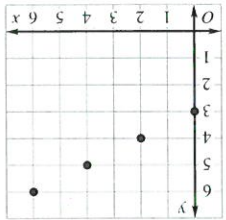
Domain: 6, 9, 12, 15, 18



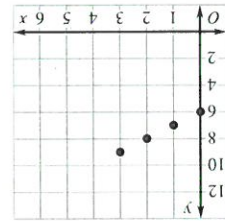
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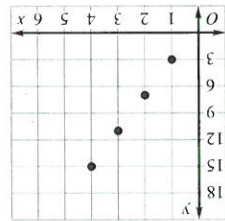
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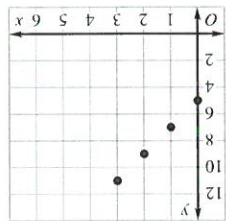
14.



9.



10.



11.

Write a rule for the function represented by the graph. Identify the domain and range of the function.

**LESSON 1.7**  
**Practice B**  
*continued* For use with pages 42–48

Name \_\_\_\_\_

Date \_\_\_\_\_