

# Math Summer Enrichment Packet for Algebra 1 CP and Honors

**Purpose:** The purpose of our summer math enrichment program is to ensure that the skills, knowledge, and content mastered over the course of the year are retained over the summer. This will help students to be better prepared and ready to succeed in their next math course.

**Grading:** Completion of all the assigned pages/problems will be counted as your first test/project grade of the year. You will be graded upon completion of all the work.

## **What portions of the math packet do I need to complete?**

On the chart below (a copy of this packet is also available on the SJP website), teachers have identified specific portions of the math packet for you to complete. You only need to complete the problems assigned for your course level – i.e. CP or Honors. Any unused portions of the packet will be used as a supplementary resource during the course of the upcoming school year.

## **Where do I complete the assignments?**

All problems should be completed on lined paper. Neatness is important in math, so take your time and use a pencil. Show all of your work and clearly number all of the problems. Circle your answers.

**Due Dates:** The assignment will be due to your teacher on Tuesday, September 12<sup>th</sup>. (Note the first day of school is Thursday, September 7, 2017.)

## **What if I struggle with the work?**

Parents/guardians and students, please be aware that the math packet does not come with additional examples and/or instructions. Sections of this packet may be challenging for you at times. We suggest that if you run into difficulty with certain concepts and/or problems that you seek out advice from family and friends, previous math tutors, or utilize resources such as Khan Academy. Also, the back of the packet has answers to every odd numbered problem. You may use the answers to check your work. The key is to give the assignment your best effort and to only use the solutions at the back of the packet as an aid.

Have a great summer!

We look forward to working with all of you next year.

Best wishes,  
Your Math Department

## Summer Enrichment Packet for Algebra 1 CP and Honors Students

**Directions:** On the chart below you'll find a list of the assignments you are expected to complete over the summer. You'll notice that your summer enrichment is divided into 9 separate assignments, each covering a selection of pages from the packet. Ideally, you should plan to spread your work out over the course of the summer, and complete 1 - 2 assignments per week. You'll also notice that students in CP and Honors level courses have differing requirements. Take careful note of which pages and problems your math level is expected to complete.

Assignment	Page Numbers	College Prep Problem Set	Honors Problem Set
1	2-4	1-42	1-56
2	21	1-20	1-23
3	29-30	1-41	1-41
4	35-36	1-43	1-47
5	40-42	1-25	1-31
6	48-49	1-10	1-20
7	54-55	1-10	1-20
8	58-59	1-10	1-17, 21-23
9	70-71	N/A	1-19

NOTE: The answers to the odd problems for Assignments 2-9 are found at the end of the packet/file.

Have a great summer,  
Your Math Department



# Chapter 0

28.  $-\frac{2}{21} \div \left(-\frac{2}{15}\right)$

29.  $2\frac{1}{2} \cdot \frac{2}{15}$

Express each percent as a fraction in simplest form.

30. 20%

31. 7.5%

Use the percent proportion to find each number.

32. 18 is what percent of 72?

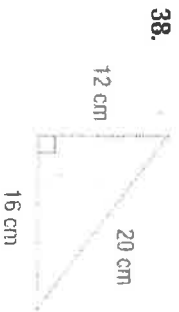
33. 35 is what percent of 200?

34. 24 is 60% of what number?

35. **TEST SCORES** James answered 14 items correctly on a 16-item quiz. What percent did he answer correctly?

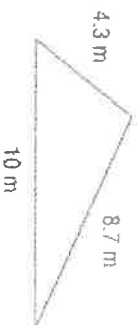
36. **BASKETBALL** Emily made 75% of the baskets that she attempted. If she made 9 baskets, how many attempts did she make?

Find the perimeter and area of each figure.

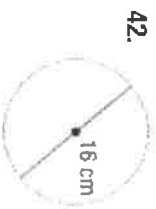
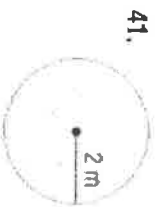


39. A parallelogram has side lengths of 7 inches and 11 inches. Find the perimeter.

40. **GARDENS** Find the perimeter of the garden.



Find the circumference and area of each circle. Round to the nearest tenth.



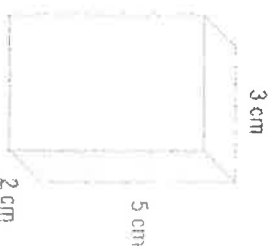
43. **BIRDS** The floor of a birdcage is a circle with a circumference of about 47.1 inches. What is the diameter of the birdcage floor? Round to the nearest inch.

Find the volume and surface area of each rectangular prism given the measurements below.

44.  $l = 3$  cm,  $w = 1$  cm,  $h = 3$  cm

45.  $l = 6$  ft,  $w = 2$  ft,  $h = 5$  ft

46. Find the volume and surface area of the rectangular prism.



# Chapter 0

One pencil is randomly selected from a case containing 3 red, 4 green, 2 black, and 6 blue pencils. Find each probability.

47.  $P(\text{green})$

48.  $P(\text{red or blue})$

49. Use a tree diagram to find the sample space for the event a die is rolled, and a coin is tossed. State the number of possible outcomes.

One coin is randomly selected from a jar containing 20 pennies, 15 nickels, 3 dimes, and 12 quarters. Find the odds of each outcome. Write in simplest form.

50. a penny

51. a penny or nickel

52. A coin is tossed 50 times. The results are shown in the table. Find the experimental probability of heads. Write as a fraction in simplest form.

Lands Face-Up	Number of Times
heads	22
tails	28

Find the mean, median, and mode for each set of data.

53. {10, 11, 18, 24, 30}

54. {4, 8, 9, 9, 10, 14, 16}

55. Find the range, median, lower quartile, and upper quartile for {16, 19, 21, 24, 25, 31, 35}.

56. **SCHOOL** Devonte's scores on his first four Spanish tests are 92, 85, 90, and 92. What test score must Devonte earn on the fifth test so that the mean will be exactly 90?

57. **MUSIC** The table shows the results of a survey in which students were asked to choose which of four instruments they would like to learn. Make a bar graph of the data.

Favorite Instrument	Number of Students
drums	8
guitar	12
piano	5
trumpet	7

58. Make a double box-and-whisker plot of the data.

A: 42, 50, 38, 59, 50, 44, 46, 62, 47, 35, 55, 56

B: 47, 49, 48, 49, 40, 54, 56, 42, 57, 45, 45, 46

59. **EXPENSES** The table shows how Dylan spent his money at the fair. What type of graph is the best way to display these data? Explain your reasoning and make a graph of the data.

How Spent	Amount (\$)
rides	6
food	10
games	4



Selected Answers and  
Step-by-Step Solutions

## Exercises

Find each sum or difference.

1.  $-8 + 13$

2.  $11 + (-19)$

3.  $-19 - 8$

4.  $-77 + (-46)$

5.  $12 - 34$

6.  $41 + (-56)$

7.  $50 - 82$

8.  $-47 - 13$

9.  $-80 + 102$

Find each product or quotient.

10.  $5(18)$

11.  $60 \div 12$

12.  $-12(15)$

13.  $-64 \div (-8)$

14.  $8(-22)$

15.  $54 \div (-6)$

16.  $30(14)$

17.  $-23(5)$

18.  $-200 \div 2$

19. **WEATHER** The outside temperature was  $-4^{\circ}\text{F}$  in the morning and  $13^{\circ}\text{F}$  in the afternoon. By how much did the temperature increase?

20. **DOLPHINS** A dolphin swimming 24 feet below the ocean's surface dives 18 feet straight down. How many feet below the ocean's surface is the dolphin now?

21. **MOVIES** A movie theater gave out 50 coupons for \$3 off each movie. What is the total amount of discounts provided by the theater?

22. **WAGES** Emilio earns \$11 per hour. He works 14 hours a week. His employer withholds \$32 from each paycheck for taxes. If he is paid weekly, what is the amount of his paycheck?

23. **FINANCIAL LITERACY** Talia is working on a monthly budget. Her monthly income is \$500. She has allocated \$200 for savings, \$100 for vehicle expenses, and \$75 for clothing. How much is available to spend on entertainment?



Selected Answers and  
Step-by-Step Solutions

## Exercises

Replace each  $\bullet$  with  $<$ ,  $>$ , or  $=$  to make a true sentence.

1.  $-\frac{5}{8} \bullet \frac{3}{8}$

2.  $\frac{4}{5} \bullet 0.71$

3.  $\frac{5}{6} \bullet 0.875$

4.  $1.2 \bullet 1\frac{2}{9}$

5.  $\frac{8}{15} \bullet 0.5\bar{3}$

6.  $-\frac{7}{11} \bullet -\frac{2}{3}$

Order each set of rational numbers from least to greatest.

7.  $3.8, 3.0\bar{6}, 3\frac{1}{6}, 3\frac{3}{4}$

8.  $2\frac{1}{4}, 1\frac{7}{8}, 1.75, 2.4$

9.  $0.11, -\frac{1}{9}, -0.5, \frac{1}{10}$

10.  $-4\frac{3}{5}, -3\frac{2}{5}, -4.65, -4.09$

Find each sum or difference. Write in simplest form.

11.  $\frac{2}{5} + \frac{1}{5}$

12.  $\frac{3}{9} + \frac{4}{9}$

13.  $\frac{5}{16} - \frac{4}{16}$

14.  $\frac{6}{7} - \frac{3}{7}$

15.  $\frac{2}{3} + \frac{1}{3}$

16.  $\frac{5}{8} + \frac{7}{8}$

17.  $\frac{4}{3} + \frac{4}{3}$

18.  $\frac{7}{15} - \frac{2}{15}$

Find each sum or difference. Write in simplest form.

19.  $\frac{1}{3} - \frac{2}{9}$

20.  $\frac{1}{2} + \frac{1}{4}$

21.  $\frac{1}{2} - \frac{1}{3}$

22.  $\frac{3}{7} + \frac{5}{14}$

23.  $\frac{7}{10} - \frac{2}{15}$

24.  $\frac{3}{8} + \frac{1}{6}$

25.  $\frac{13}{20} - \frac{2}{5}$

Find each sum or difference. Write in simplest form if necessary.

26.  $-1.6 + (-3.8)$

27.  $-32.4 + (-4.5)$

28.  $-38.9 + 24.2$

29.  $-9.16 - 10.17$

30.  $26.37 + (-61.1)$

31.  $72.5 - (-81.3)$

32.  $43.2 + (-27.9)$

33.  $79.3 - (-14)$

34.  $1.34 - (-0.458)$

35.  $-\frac{1}{6} - \frac{2}{3}$

36.  $\frac{1}{2} - \frac{4}{5}$

37.  $-\frac{2}{5} + \frac{17}{20}$

38.  $-\frac{4}{5} + \left(-\frac{1}{3}\right)$

39.  $-\frac{1}{12} - \left(-\frac{3}{4}\right)$

40.  $-\frac{7}{8} - \left(-\frac{3}{16}\right)$

41. **GEOGRAPHY** About  $\frac{7}{10}$  of the surface of Earth is covered by water. The rest of the surface is covered by land. How much of Earth's surface is covered by land?





Selected Answers and  
Step-by-Step Solutions

## Exercises

Find each product or quotient. Round to the nearest hundredth if necessary.

- |                  |                       |                      |
|------------------|-----------------------|----------------------|
| 1. $6.5(0.13)$   | 2. $-5.8(2.3)$        | 3. $42.3 \div (-6)$  |
| 4. $-14.1(-2.9)$ | 5. $-78 \div (-1.3)$  | 6. $108 \div (-0.9)$ |
| 7. $0.75(-6.4)$  | 8. $-23.94 \div 10.5$ | 9. $-32.4 \div 21.3$ |

Find each product. Simplify before multiplying if possible.

- |   |   |   |
|---|---|---|
| 10. $\frac{3}{4} \cdot \frac{1}{5}$                 | 11. $\frac{2}{3} \cdot \frac{3}{7}$                       | 12. $-\frac{1}{3} \cdot \frac{2}{5}$                              |
| 13. $-\frac{2}{3} \cdot \left(-\frac{1}{11}\right)$ | 14. $2\frac{1}{2} \cdot \left(-\frac{1}{4}\right)$        | 15. $3\frac{1}{2} \cdot 1\frac{1}{2}$                             |
| 16. $\frac{2}{9} \cdot \frac{1}{2}$                 | 17. $\frac{3}{2} \cdot \left(-\frac{1}{3}\right)$         | 18. $\frac{1}{3} \cdot \frac{6}{5}$                               |
| 19. $-\frac{9}{4} \cdot \frac{1}{18}$               | 20. $\frac{11}{3} \cdot \frac{9}{44}$                     | 21. $\left(-\frac{30}{11}\right) \cdot \left(-\frac{1}{3}\right)$ |
| 22. $-\frac{3}{5} \cdot \frac{5}{6}$                | 23. $\left(-\frac{1}{3}\right)\left(-7\frac{1}{2}\right)$ | 24. $\frac{2}{7} \cdot 4\frac{2}{3}$                              |

Name the reciprocal of each number.

- |                    |                     |                      |
|--------------------|---------------------|----------------------|
| 25. $\frac{6}{7}$  | 26. $\frac{1}{22}$  | 27. $-\frac{14}{23}$ |
| 28. $2\frac{3}{4}$ | 29. $-5\frac{1}{3}$ | 30. $3\frac{3}{4}$   |

Find each quotient.

31.  $\frac{2}{3} \div \frac{1}{3}$

32.  $\frac{16}{9} \div \frac{4}{9}$

33.  $\frac{3}{2} \div \frac{1}{2}$

34.  $\frac{3}{7} \div \left(-\frac{1}{5}\right)$

35.  $-\frac{9}{10} \div 3$

36.  $\frac{1}{2} \div \frac{3}{5}$

37.  $2\frac{1}{4} \div \frac{1}{2}$

38.  $-1\frac{1}{3} \div \frac{2}{3}$

39.  $\frac{11}{12} \div 1\frac{2}{3}$

40.  $4 \div \left(-\frac{2}{7}\right)$

41.  $-\frac{1}{3} \div \left(-1\frac{1}{5}\right)$

42.  $\frac{3}{25} \div \frac{2}{15}$

43. **PIZZA** A large pizza at Pizza Shack has 12 slices. If Bobby ate  $\frac{1}{4}$  of the pizza, how many slices of pizza did he eat?

44. **MUSIC** Samantha practices the flute for  $4\frac{1}{2}$  hours each week. How many hours does she practice in a month?

45. **BAND** How many band uniforms can be made with  $131\frac{3}{4}$  yards of fabric if each uniform requires  $3\frac{7}{8}$  yards?

46. **CARPENTRY** How many boards, each 2 feet 8 inches long, can be cut from a board 16 feet long if there is no waste?

47. **SEWING** How many 9-inch ribbons can be cut from  $1\frac{1}{2}$  yards of ribbon?

Selected Answers and  
Step-by-Step Solutions

## Exercises

Express each percent as a fraction or mixed number in simplest form.

- |         |         |          |
|---------|---------|----------|
| 1. 5%   | 2. 60%  | 3. 11%   |
| 4. 120% | 5. 78%  | 6. 2.5%  |
| 7. 0.6% | 8. 0.4% | 9. 1400% |

Use the percent proportion to find each number.

- |                                |                                |
|--------------------------------|--------------------------------|
| 10. 25 is what percent of 125? | 11. 16 is what percent of 40?  |
| 12. 14 is 20% of what number?  | 13. 50% of what number is 80?  |
| 14. What number is 25% of 18?  | 15. Find 10% of 95.            |
| 16. What percent of 48 is 30?  | 17. What number is 150% of 32? |
| 18. 5% of what number is 3.5?  | 19. 1 is what percent of 400?  |
| 20. Find 0.5% of 250.          | 21. 49 is 200% of what number? |
| 22. 15 is what percent of 12?  | 23. 36 is what percent of 24?  |
24. **BASKETBALL** Madeline usually makes 85% of her shots in basketball. If she attempts 20, how many will she likely make?
25. **TEST SCORES** Brian answered 36 items correctly on a 40-item test. What percent did he answer correctly?
26. **CARD GAMES** Juanita told her dad that she won 80% of the card games she played yesterday. If she won 4 games, how many games did she play?
27. **SOLUTIONS** A glucose solution is prepared by dissolving 6 milliliters of glucose in 120 milliliters of pure solution. What is the percent of glucose in the resulting solution?

28. DRIVER'S ED Kara needs to get a 75% on her driving education test in order to get her license. If there are 35 questions on the test, how many does she need to answer correctly?

29. HEALTH The U.S. Food and Drug Administration requires food manufacturers to label their products with a nutritional label. The label shows the information from a package of macaroni and cheese.

- a. The label states that a serving contains 3 grams of saturated fat, which is 15% of the daily value recommended for a 2000-Calorie diet. How many grams of saturated fat are recommended for a 2000-Calorie diet?
- b. The 470 milligrams of sodium (salt) in the macaroni and cheese is 20% of the recommended daily value. What is the recommended daily value of sodium?
- c. For a healthy diet, the National Research Council recommends that no more than 30 percent of the total Calories come from fat. What percent of the Calories in a serving of this macaroni and cheese come from fat?

Nutrition Facts	
Serving Size	1 cup (228g)
Servings per container	2
<b>Amount per serving</b>	
Calories	250 <small>Calories from Fat 110</small>
	<small>%Daily value*</small>
<b>Total Fat</b>	12g 18%
	<small>Saturated Fat 3g 15%</small>
<b>Cholesterol</b>	30mg 10%
<b>Sodium</b>	470mg 20%
<b>Total Carbohydrate</b>	31g 10%
	<small>Dietary Fiber 0g 0%</small>
	<small>Sugars 5g</small>
<b>Protein</b>	5g
Vitamin A	4% • Vitamin C 2%
Calcium	20% • Iron 4%

- 30. TEST SCORES** The table shows the number of points each student in Will's study group earned on a recent math test. There were 88 points possible on the test. Express all answers to the nearest tenth of a percent.

Name	Will	Penny	Cheng	Minowa	Rob
Score	72	68	81	87	75

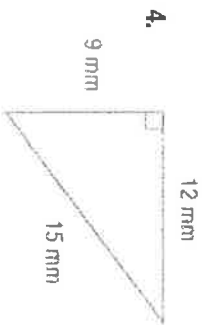
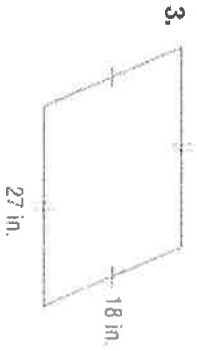
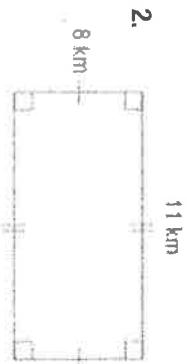
- Find Will's percent correct on the test.
  - Find Cheng's percent correct on the test.
  - Find Rob's percent correct on the test.
  - What was the highest percentage? the lowest?
- 31. PET STORE** In a pet store, 15% of the animals are hamsters. If the store has 40 animals, how many of them are hamsters?



Selected Answers and  
Step-by-Step Solutions

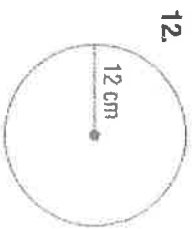
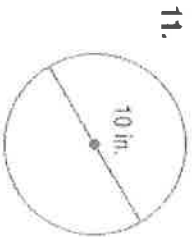
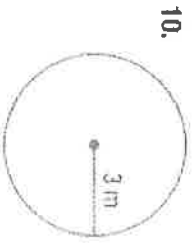
## Exercises

Find the perimeter of each figure.



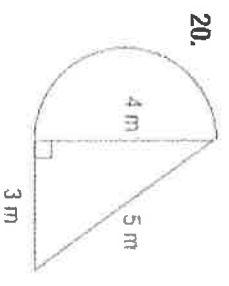
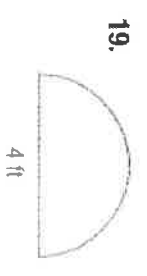
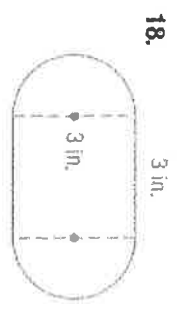
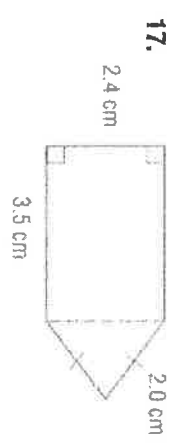
5. a square with side length 8 inches
6. a rectangle with length 9 centimeters and width 3 centimeters
7. a triangle with sides 4 feet, 13 feet, and 12 feet
8. a parallelogram with side lengths  $6\frac{1}{4}$  inches and 5 inches
9. a quarter-circle with a radius of 7 inches

Find the circumference of each circle. Round to the nearest tenth.



- 13. GARDENS** A square garden has a side length of 5.8 meters. What is the perimeter of the garden?
- 14. ROOMS** A rectangular room is  $12\frac{1}{2}$  feet wide and 14 feet long. What is the perimeter of the room?
- 15. CYCLING** The tire for a 10-speed bicycle has a diameter of 27 inches. Find the distance traveled in 10 rotations of the tire. Round to the nearest tenth.
- 16. GEOGRAPHY** Earth's circumference is approximately 25,000 miles. If you could dig a tunnel to the center of the Earth, how long would the tunnel be? Round to the nearest tenth mile.

Find the perimeter of each figure. Round to the nearest tenth.





Selected Answers and Step-by-Step Solutions

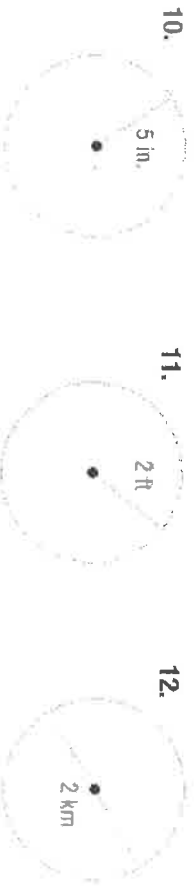
### Exercises

Find the area of each figure.



1. a triangle with a base 12 millimeters and height 11 millimeters
2. a square with side length 9 feet
3. a rectangle with length 8 centimeters and width 2 centimeters
4. a triangle with a base 6 feet and height 3 feet
5. a quarter-circle with a diameter of 4 meters
6. a semi-circle with a radius of 3 inches

Find the area of each circle. Round to the nearest tenth.



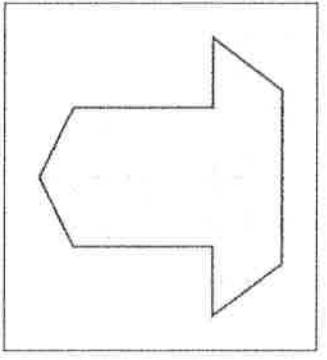
10. The radius is 4 centimeters.
11. The radius is 7.2 millimeters.
12. The diameter is 16 inches.
13. The diameter is 25 feet.



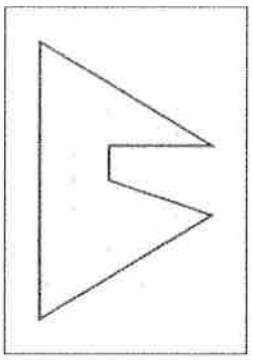
17. **CAMPING** The square floor of a tent has an area of 49 square feet. What is the side length of the tent?

Estimate the area of each polygon in square units.

18.



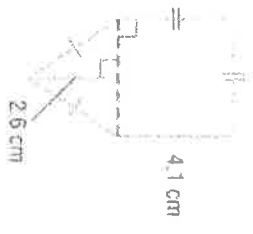
19.



20. **MYSTERY** Stonehenge is an ancient monument in Wiltshire, England. The giant stones of Stonehenge are arranged in a circle 30 meters in diameter. Find the area of the circle. Round to the nearest tenth square meter.

Find the area of each figure. Round to the nearest tenth.

21.



22.



23.





Selected Answers and  
Step-by-Step Solutions

## Exercises

Find the volume of each rectangular prism given the length, width, and height.

- $\ell = 5$  cm,  $w = 3$  cm,  $h = 2$  cm
- $\ell = 10$  m,  $w = 10$  m,  $h = 1$  m
- $\ell = 6$  yd,  $w = 2$  yd,  $h = 4$  yd
- $\ell = 2$  in,  $w = 5$  in,  $h = 12$  in.
- $\ell = 13$  ft,  $w = 9$  ft,  $h = 12$  ft
- $\ell = 7.8$  mm,  $w = 0.6$  mm,  $h = 8$  mm

Find the volume of each rectangular prism.

7. 

8. 

- GEOMETRY** A cube measures 3 meters on a side. What is its volume?
- AQUARIUMS** An aquarium is 8 feet long, 5 feet wide, and 5.5 feet deep. What is the volume of the aquarium?
- COOKING** What is the volume of a microwave oven that is 18 inches wide by 10 inches long with a depth of  $11\frac{1}{2}$  inches?

**12. BOXES** A cardboard box is 32 inches long, 22 inches wide, and 16 inches tall. What is the volume of the box?

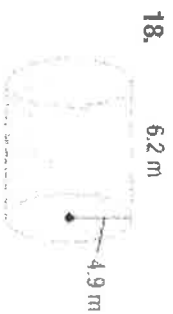
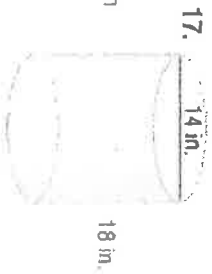
**13. SWIMMING POOLS** A children's rectangular pool holds 480 cubic feet of water. What is the depth of the pool if its length is 30 feet and its width is 16 feet?

**14. BAKING** A rectangular cake pan has a volume of 234 cubic inches. If the length of the pan is 9 inches and the width is 13 inches, what is the height of the pan?

**15. GEOMETRY** The volume of the rectangular prism is 440 cubic centimeters. What is the width?



Find the volume of each cylinder. Round to the nearest tenth.



**19. FIREWOOD** Firewood is usually sold by a measure known as a cord. A full cord may be a stack  $8 \times 4 \times 4$  feet or a stack  $8 \times 8 \times 2$  feet.

**a.** What is the volume of a full cord of firewood?

**b.** A “short cord” of wood is  $8 \times 4 \times$  the length of the logs. What is the volume of a short cord of  $2\frac{1}{2}$ -foot logs?

**c.** If you have an area that is 12 feet long and 2 feet wide in which to store your firewood, how high will the stack be if it is a full cord of wood?



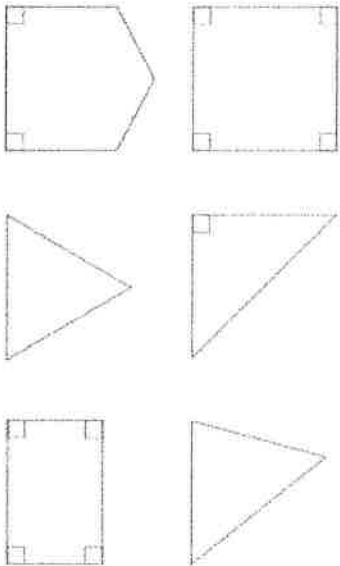
Selected Answers and Step-by-Step Solutions

### Exercises

One coin is randomly selected from a jar containing 70 nickels, 100 dimes, 80 quarters, and 50 one-dollar coins. Find each probability.

1.  $P(\text{quarter})$
2.  $P(\text{dime})$
3.  $P(\text{quarter or nickel})$
4.  $P(\text{value greater than } \$0.10)$
5.  $P(\text{value less than } \$1)$
6.  $P(\text{value at most } \$1)$

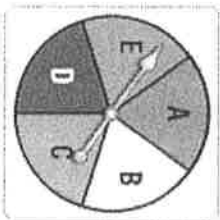
One of the polygons below is chosen at random. Find each probability.



7.  $P(\text{triangle})$
8.  $P(\text{pentagon})$
9.  $P(\text{not a quadrilateral})$
10.  $P(\text{more than 2 right angles})$

Use a tree diagram to find the sample space for each event. State the number of possible outcomes.

11. The spinner shown is spun and two coins are tossed.



12. At a restaurant, you choose two sides to have with breakfast. You can choose white or whole wheat toast. You can choose sausage links, sausage patties, or bacon.

13. How many different 3-character codes are there using A, B, or C for the first character, 8 or 9 for the second character, and 0 or 1 for the third character?

A bag is full of different colored marbles. The probability of randomly selecting a red marble from the bag is  $\frac{1}{8}$ . The probability of selecting a blue marble is  $\frac{13}{24}$ .

Find each probability.

14.  $P(\text{not red})$

15.  $P(\text{not blue})$

Find the odds of each outcome if a computer randomly picks a letter in the name THE UNITED STATES OF AMERICA.

16. the letter A

17. the letter T

18. a vowel

19. a consonant

Margaret wants to order a sub at the local deli.

20. Find the number of possible orders of a sub with one topping and one dressing option.

21. Find the number of possible ham subs with mayonnaise, any combination of toppings or no toppings at all.

22. Find the number of possible orders of a sub with any combination of dressing and/or toppings.

Subs	
ham, salami, roast beef, turkey, bologna, pepperoni	
Dressing	Toppings
mayonnaise, mustard, vinegar, oil	lettuce, onions, peppers, olives



Lesson 0-3

1.5 3.-27 5.-22 7.-32 9.22 11.5 13.8  
15.-9 17.-115 19.17° 21.\$150 23.\$125

Lesson 0-4

1. < 3. < 5. = 7. 3.06,  $3\frac{1}{6}$ ,  $3\frac{3}{4}$ , 3.8 9. -0.5,  $-\frac{1}{9}$ ,  
 $\frac{1}{10}$ , 0.11 11.  $\frac{3}{5}$  13.  $\frac{1}{16}$  15. 1 17.  $2\frac{2}{3}$  19.  $\frac{1}{9}$   
21.  $\frac{1}{6}$  23.  $\frac{17}{30}$  25.  $\frac{1}{4}$  27. -36.9 29. -19.33  
31. 153.8 33. 93.3 35.  $-\frac{5}{6}$  37.  $\frac{9}{20}$  39.  $\frac{2}{3}$  41.  $\frac{3}{10}$

Lesson 0-5

1. 0.85    3. -7.05    5. 60    7. -4.8    9. -1.52  
 11.  $\frac{6}{35}$     13.  $\frac{2}{33}$     15.  $\frac{21}{4}$  or  $5\frac{1}{4}$     17.  $-\frac{1}{2}$     19.  $-\frac{1}{8}$   
 21.  $\frac{10}{11}$     23.  $\frac{5}{2}$  or  $2\frac{1}{2}$     25.  $\frac{7}{6}$  or  $1\frac{1}{6}$     27.  $-\frac{23}{14}$  or  $-1\frac{9}{14}$   
 29.  $-\frac{3}{16}$     31. 2    33. 3    35.  $-\frac{3}{10}$     37.  $\frac{9}{2}$  or  $4\frac{1}{2}$   
 39.  $\frac{11}{20}$     41.  $\frac{5}{18}$     43. 3 slices    45. 34 uniforms  
 47. 6 ribbons



Lesson 0-6

- 1.**  $\frac{1}{20}$     **3.**  $\frac{11}{100}$     **5.**  $\frac{39}{50}$     **7.**  $\frac{3}{500}$     **9.** 14    **11.** 40%  
**13.** 160    **15.** 9.5    **17.** 48    **19.** 0.25%    **21.** 24.5  
**23.** 150%    **25.** 90%    **27.** 5%    **29a.** 20 g  
**29b.** 2350 mg    **29c.** 44%    **31.** 6 animals



Lesson 0-7

1. 20 m    3. 90 in.    5. 32 in.    7. 29 ft    9. 25.0 in.  
11. 31.4 in.    13. 23.2 m    15. 848.2 in.    17. 13.4 cm  
19. 10.3 ft

## Lesson 0-8

1. 6 cm<sup>2</sup>    3. 120 m<sup>2</sup>    5. 81 ft<sup>2</sup>    7. 9 ft<sup>2</sup>    9. 14.1 in<sup>2</sup>  
11. 12.6 ft<sup>2</sup>    13. 50.3 cm<sup>2</sup>    15. 201.1 in<sup>2</sup>    17. 7 ft  
19. 20.5 units<sup>2</sup>    21. 22.1 cm<sup>2</sup>    23. 4.0 cm<sup>2</sup>

Lesson 0-11

- 1.  $\frac{4}{15}$     3.  $\frac{1}{2}$     5.  $\frac{5}{6}$     7.  $\frac{1}{2}$     9.  $\frac{2}{3}$     11. 20    13. 12 codes
- 15.  $\frac{11}{24}$     17. 1:5    19. 13:11    21. 16 orders