

## Chapter 0 Pretest

Determine whether you need an estimate or an exact answer. Then solve.

- SHOPPING** Addison paid \$1.29 for gum and \$0.89 for a package of notebook paper. She gave the cashier a \$5 bill. If the tax was \$0.14, how much change should Addison receive?
- DISTANCE** Luis rode his bike 1.2 miles to his friend's house, then 0.7 mile to the video store, then 1.9 miles to the library. If he rode the same route back home, about how far did he travel in all?

Find each sum or difference.

- $20 + (-7)$
- $-15 + 6$
- $-9 - 22$
- $18.4 - (-3.2)$
- $23.1 + (-9.81)$
- $-5.6 + (-30.7)$

Find each product or quotient.

- $11(-8)$
- $-15(-2)$
- $63 \div (-9)$
- $-22 \div 11$

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

13.  $\frac{7}{20} \equiv \frac{2}{5}$

14.  $0.15 \equiv \frac{1}{8}$

15. Order  $0.5$ ,  $-\frac{1}{7}$ ,  $-0.2$ , and  $\frac{1}{3}$  from least to greatest.

Find each sum or difference. Write in simplest form.

16.  $\frac{5}{6} + \frac{2}{3}$

17.  $\frac{11}{12} - \frac{3}{4}$

18.  $\frac{1}{2} + \frac{4}{9}$

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

Find each product or quotient.

20.  $2.4(-0.7)$

21.  $-40.5 \div (-8.1)$

Name the reciprocal of each number.

22.  $\frac{4}{11}$

23.  $-\frac{3}{7}$

Find each product or quotient. Write in simplest form.

24.  $\frac{2}{21} \div \frac{1}{3}$

25.  $\frac{1}{5} \cdot \frac{3}{20}$

26.  $\frac{6}{25} \div \left(-\frac{3}{5}\right)$

27.  $\frac{1}{9} \cdot \frac{3}{4}$

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?

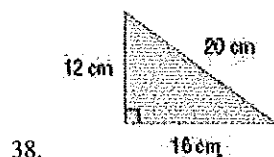
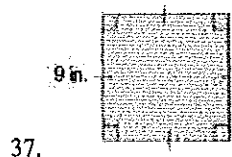
34. 24 is 60% of what number?

**Chapter 0 Pretest**

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

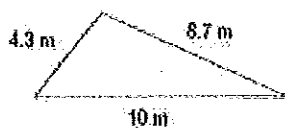
36. **BASKETBALL** Emily made 75% of the baskets that she attempted. If she made 9 baskets, how many attempts did she make?

Find the perimeter and area of each figure.

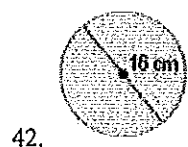
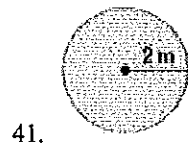


39. A parallelogram has side lengths of 7 inches and 11 inches. Find the perimeter.

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



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



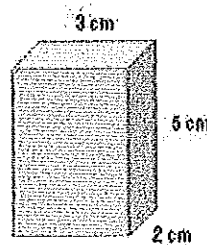
43. **BIRDS** The floor of a birdcage is a circle with a circumference of about 47.1 inches. What is the diameter of the birdcage floor? Round to the nearest inch.

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

44.  $l = 3 \text{ cm}$ ,  $w = 1 \text{ cm}$ ,  $h = 3 \text{ cm}$

45.  $l = 6 \text{ ft}$ ,  $w = 2 \text{ ft}$ ,  $h = 5 \text{ ft}$

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



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}

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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	
Instrument	Number of Students
drums	8
guitar	12
piano	3
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. Make a circle graph of the data.

Money Spent at the Fair	
How Spent	Amount (\$)
rides	6
food	10
games	4

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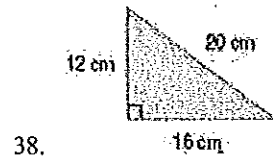
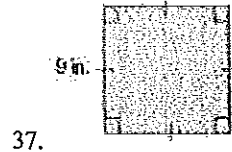
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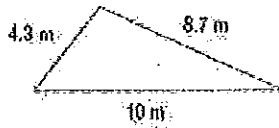
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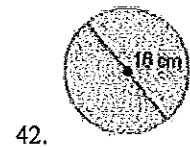
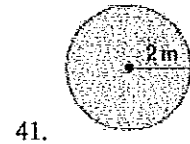
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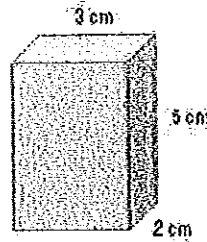


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