Name _____ Date _____

Unit 1 Test

For use after Chapters 1–4

Find the sum, difference, product or quotient.

1. $287 + 304$ **2.** $416 \div 13$ **3.** 27×136

Evaluate the expression.

4. 4^3 **5.** $9^2 - 36 \div 3$

6. $12 + 6 \times 3 - 14 \div 7$ **7.** $5^2 + 3 \times 8$

Evaluate the expression when $x = 8$.

8. $12x + 7$ **9.** $36 \div (x + 4)$

Solve the equation using mental math.

10. $36 - x = 17$ **11.** $35 \div x = 7$

Estimate the length of the object using the indicated unit.

12. length of the sunflower seed (millimeters)

13. length of the line segment (inches)

14. Find the perimeter and area of a rectangle with a length of 12 inches and a width of 18 inches.
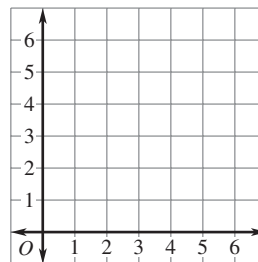
15. A picture of a bicycle in a catalog is 4 inches tall. The scale is 2 inches : 18 inches. How tall is the actual bike?

16. You want to compare the numbers of sixth graders to the numbers of seventh graders on the sports teams at your school. Should you use a stacked bar graph or a double bar graph?
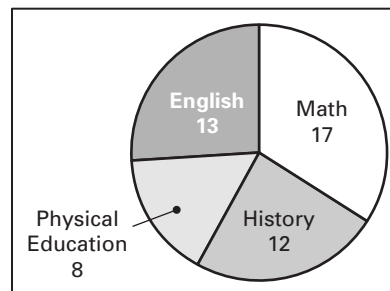
Graph the point on the coordinate grid.

17. $(5, 3)$

18. $(2, 4)$

19. Fifty students were asked what they believe their most important school subject is. Use the results shown in the circle graph to predict the number of students out of 250 that would choose math.

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____See left._____

18. _____See left._____

19. _____

20. Find the mean, median, mode(s) and range of the data:

22, 26, 24, 22, 16, 12, 18, 22, 18, 20

21. Write 31.0152 in words.

22. Complete the statement:

2 and 6 tenths centimeters = __?__ centimeters.

23. Order the numbers from least to greatest:

5.09, 5.2, 5.12, 5.07, 5.1

Round the decimal as specified.

24. 92.0327 (nearest hundredth)

25. 0.01561 (leading digit)

26. Use rounding to estimate the sum $3.8 + 4.2 + 3.7$.

27. Use front-end estimation to estimate the sum $5.69 + 2.12 + 3.07$.

Evaluate the expression when $x = 3.12$ and $y = 5.06$.

28. $15.7 + x$

29. $(9.1 + x) - y$

Find the product.

30. 7×1.45

31. 4.315×8

32. 0.35×0.71

33. 2.1×0.3

34. Find the area of a rectangle with length 6.2 meters and width 3.12 meters.

35. Ground meat costs $2.89 a pound. You buy 1.2 pounds in one package and 1.8 pounds in another. To the nearest cent, how much do you spend on meat?

Divide. Round to the nearest tenth if necessary.

36. $15 \div 6$

37. $7\overline{)24.76}$

38. $6.205 \div 0.1$

39. $0.24\overline{)156.8}$

Choose an appropriate metric unit to measure the item.

40. capacity of an eyedropper

41. mass of a truck

42. Complete the statement: $175 \text{ g} = $ __?__ kg.

Answers

20. _____

_____

_____

_____

21. _____

_____

_____

22. _____

23. _____

24. _____

25. _____

26. _____

27. _____

28. _____

29. _____

30. _____

31. _____

32. _____

33. _____

34. _____

35. _____

36. _____

37. _____

38. _____

39. _____

40. _____

41. _____

42. _____

Name _____ Date _____

Unit 2 Test

For use after Chapters 5–7

Tell whether the number is *prime*, *composite*, or *neither*.

1. 34   **2.** 17   **3.** 1

Write the prime factorization of the number.

4. 50   **5.** 56   **6.** 207

Find the GCF of the numbers.

7. 28, 42   **8.** 70, 105   **9.** 30, 42, 54

Complete the statement.

10. $\dfrac{?}{9} = \dfrac{42}{54}$ **11.** $\dfrac{7}{?} = \dfrac{35}{60}$ **12.** $\dfrac{8}{9} = \dfrac{?}{81}$

Find the LCM of the numbers.

13. 24, 60   **14.** 14, 21   **15.** 6, 8, 12

16. Three different brands of fettuccini noodles were measured. The thicknesses of noodles from the brands were $\frac{7}{32}$ inch, $\frac{3}{16}$ inch, and $\frac{2}{8}$ inch. Put the fractions in order from least to greatest.

17. Write $\frac{19}{4}$ as a mixed number and as a decimal.

18. Write 5.4 as a mixed number in simplest form and as an improper fraction.

19. Write three and two eighths as a decimal and as an improper fraction.

Estimate the sum or difference.

20. $1\dfrac{1}{10} + \dfrac{9}{11}$ **21.** $\dfrac{7}{8} - \dfrac{2}{5}$ **22.** $3\dfrac{3}{11} - 1\dfrac{4}{9}$

Find the sum or difference.

23. $\dfrac{1}{7} + \dfrac{2}{7}$ **24.** $\dfrac{7}{8} + \dfrac{3}{4}$ **25.** $3\dfrac{5}{7} - 1\dfrac{3}{7}$

26. $4\dfrac{1}{3} + 2\dfrac{5}{12}$ **27.** $1\dfrac{2}{3} - \dfrac{5}{6}$ **28.** $2\dfrac{1}{6} - 1\dfrac{1}{4}$

29. You cut $3\frac{1}{4}$ acres of grass on Saturday and $2\frac{2}{5}$ acres on Sunday. How much grass did you cut?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____
26. _____
27. _____
28. _____
29. _____

Add or subtract the measures of time.

30.   5 h 47 min
        + 2 h 29 min

31.   7 h 15 min 35 sec
        − 3 h 30 min 42 sec

32. A preschool child attends school from 9:15 A.M. to 1:35 P.M. How long is she in school?

Find the product.

33. $\dfrac{2}{3} \times \dfrac{7}{9}$

34. $\dfrac{3}{4} \times \dfrac{8}{15}$

35. $7 \times \dfrac{2}{5}$

36. $1\dfrac{2}{3} \times \dfrac{5}{6}$

37. $\dfrac{7}{8} \times 2\dfrac{2}{7}$

38. $3\dfrac{1}{3} \times 2\dfrac{2}{5}$

39. Estimate the product $\dfrac{3}{5} \times 26$.

40. Evaluate the expression $\dfrac{5}{6}x$ when $x = \dfrac{3}{4}$.

Find the quotient.

41. $\dfrac{2}{5} \div \dfrac{3}{8}$

42. $\dfrac{2}{3} \div \dfrac{8}{9}$

43. $7 \div \dfrac{3}{5}$

44. $1\dfrac{4}{5} \div 12$

45. $2\dfrac{1}{3} \div 1\dfrac{1}{7}$

46. $4\dfrac{2}{3} \div 3\dfrac{1}{2}$

47. You need to travel 250 miles in $4\dfrac{1}{6}$ hours. If you travel at a steady speed, how many miles should you travel per hour?

Tell whether the measurement is a *weight*, a *capacity*, or a *length*.

48. $1\dfrac{3}{16}$ inches

49. 6 fluid ounces

Complete the statement.

50. 5 lbs 4 oz = __?__ oz

51. 3 yd 2 ft = __?__ ft

Answers

30. _____

31. _____

32. _____

33. _____

34. _____

35. _____

36. _____

37. _____

38. _____

39. _____

40. _____

41. _____

42. _____

43. _____

44. _____

45. _____

46. _____

47. _____

48. _____

49. _____

50. _____

51. _____

Name _____ Date _____

Unit 3 Test
For use after Chapters 8–10

1. In a choir, 17 of the 50 members are tenors. Write the ratio three different ways.

Complete the statement.

2. $\dfrac{15 \text{ lb}}{\$3} = \dfrac{30 \text{ lb}}{?}$

3. $\dfrac{120 \text{ mi}}{6 \text{ h}} = \dfrac{?}{18 \text{ h}}$

4. $\dfrac{?}{10 \text{ sec}} = \dfrac{7 \text{ m}}{40 \text{ sec}}$

5. A computer programmer types 75 words in 5 minutes. Write the unit rate.

Solve the proportion.

6. $\dfrac{x}{6} = \dfrac{13}{39}$

7. $\dfrac{14}{35} = \dfrac{y}{10}$

8. $\dfrac{64}{z} = \dfrac{16}{18}$

9. A model boat is 6 inches long. If the scale is 2 in. : 5 ft, how long is the actual boat?

Write the decimal or fraction as a percent.

10. 0.36

11. 0.02

12. $\dfrac{14.2}{100}$

13. $\dfrac{2}{5}$

14. $\dfrac{3}{25}$

15. $\dfrac{3}{8}$

16. A survey at a middle school said that $\frac{3}{5}$ of the students had a computer at home. What percent of students did not have a computer at home?

Find the percent of the number.

17. 75% of 12

18. 20% of 60

19. 16% of 15

20. An amusement park is offering tickets to schools at a 20% discount. If tickets are normally $36, how much will they cost?

Sketch the figure described.

21. $\overrightarrow{XY}$

22. $\angle ABC$

23. $\overleftrightarrow{MN}$

24. Find the measure of an angle that is complementary to an angle measuring 42°.

25. Tell whether the angle measures 62°, 62°, and 56° are those of a triangle. If so, classify the triangle as *acute, right,* or *obtuse.*
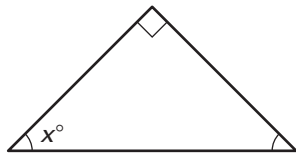
Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. ____See left.____
22. ____See left.____
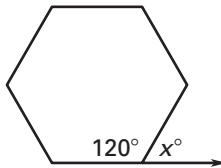23. ____See left.____
24. _____
25. _____

Unit 3 Test

For use after Chapters 8–10

Find the value of x.

Answers

26.

27.

120° /x°

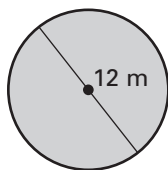**28.** Sketch a rectangle that is also a rhombus. Then draw the lines of symmetry.

29. △*RST* is congruent to △*FGH*. List the corresponding parts.
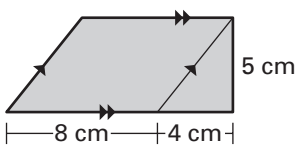
30. What type of triangle has 3 lines of symmetry?

31. Find the circumference of a circle that has a radius of 200 inches.
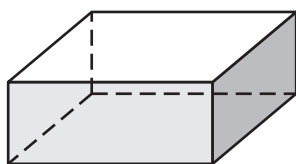
Find the area of the figure.

32.

12 m
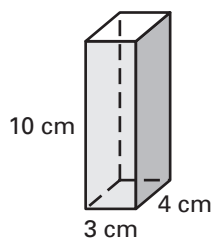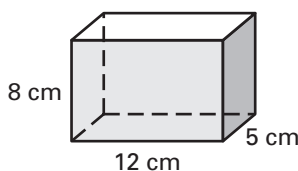
33.

5 cm

8 cm 4 cm

Classify the solid.

34.

35.

36. Count the faces, edges, and vertices of the solid in Exercise 34.

Find the surface area and the volume of the prism.

37.

10 cm

4 cm

3 cm

38.

8 cm

12 cm

5 cm

39. A picnic cooler has a volume of 10 cubic feet. If the length and the height of the cooler are both 2 feet, how wide is the cooler?

26. _____

27. _____

28. ___See left.___

29. _____

_____

_____

30. _____

31. _____

32. _____

33. _____

34. _____

35. _____

36. _____

_____

37. _____

38. _____

39. _____

Name _____ Date _____

Unit 4 Test

For use after Chapters 11–13

1. Order the integers $-1, -7, 0, 3, -2$ from least to greatest.
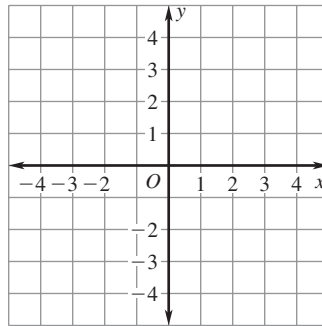
Find the absolute value of the number.

2. -10 **3.** 13 **4.** -25

Find the sum or difference.

5. $-21 + 17$ **6.** $19 + (-31)$ **7.** $-17 + (-23)$

8. $13 - (-23)$ **9.** $-27 - 32$ **10.** $24 - (-6)$

Find the product or quotient.

11. $11(-8)$ **12.** $-11(0)$ **13.** $-6(-12)$

14. $64 \div (-8)$ **15.** $-35 \div 5$ **16.** $-32 \div (-4)$

17. The vertices of $\triangle ABC$ are $A(-2, 4)$, $B(-4, 1)$, and $C(0, 2)$. Draw $\triangle ABC$ in the coordinate plane. Then translate it 3 units to the right and 4 units down to form $\triangle XYZ$. Give the coordinates of points X, Y, and Z.

Tell whether the transformation is a *translation*, a *reflection* in the x-axis, a *reflection* in the y-axis, or a *rotation*.

18.

19.
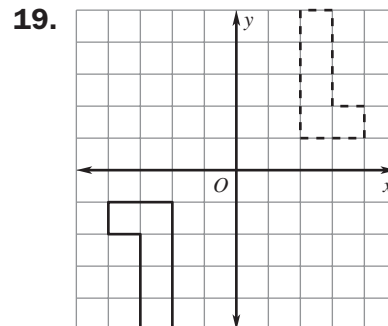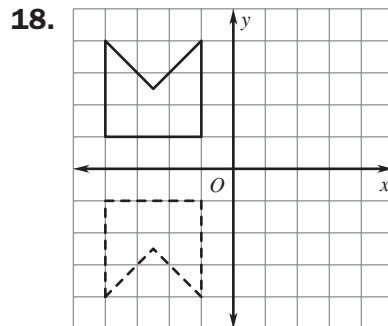
Write the sentence as an equation.

20. A number m decreased by 7 is 9.

21. A number j divided by 6 is 5.

22. Make a box-and-whisker plot of the data 21, 8, 12, 17, 11, 35, 22, 24, 31, 19, and 25.

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. __See graph.__
    _____
18. _____
19. _____
20. _____
21. _____
22. __See left.__

Name _____ Date _____

Unit 4 Test

For use after Chapters 11–13

Solve the equation.

23. $x + 16 = 31$

24. $72 = 50 + z$

25. $27 = y - 9$

26. $w - 36 = 17$

Solve the equation.

27. $24w = 72$

28. $\dfrac{z}{10} = 110$

29. $16 = 0.5x$

30. $4 = \dfrac{y}{12}$

31. Complete the input-output table using the function rule
$y = 4x - 6$ and the input values $x = 2, 3,$ and 5. Then graph
the function.

input x	output y

A bag contains 8 tiles labeled 1, 3, 4, 5, 9, 10, 12, and 13. You randomly choose one tile. Find the probability of the event.

32. The tile has an even number.

33. The number is a multiple of 5.

34. You visit the zoo but only have time to visit 2 animals. You can
see a lion, tiger, monkey, yak, or zebra. Use the first letters of
the animal names to list all the combinations of 2 animals you
can visit.

**Each spinner is divided into equal parts. You spin the spinners.
Find the probability of the event.**

35. You spin two 3's.

36. You spin a sum of 6.

Answers

23. _____

24. _____

25. _____

26. _____

27. _____

28. _____

29. _____

30. _____

31. _____See left._____

32. _____

33. _____

34. _____

_____

_____

_____

35. _____

36. _____