Name: _____ Date: _____

End-of-Year Review

Test Prep

Multiple Choice

Shade the circle next to the correct answer.

1. In 130.426, the digit 2 is in the _____ place. *(Lesson 8.1)*

(A) tens (B) tenths
(C) hundredths (D) thousandths

2. Use front-end estimation with adjustment to estimate 6,189 − 3,674. *(Lesson 1.4)*

(A) 1,000 (B) 2,000
(C) 3,000 (D) 4,000

3. Simplify $48 \div 8 + 13 \times 3$. *(Lesson 2.6)*

(A) 45 (B) 54
(C) 57 (D) 75

4. Express $10\frac{1}{4} - 4\frac{1}{2}$ as a decimal. *(Lesson 3.3)*

(A) 6.25 (B) 5.75
(C) 5.43 (D) 5.34

5. Express 9.062 as a mixed number in simplest form. *(Lesson 8.3)*

(A) $9\frac{62}{100}$ (B) $9\frac{31}{50}$
(C) $9\frac{62}{1000}$ (D) $9\frac{31}{500}$

6. What is the product of 96 and 13? *(Lesson 2.3)*

(A) 900 (B) 960
(C) 1,170 (D) 1,248

7. Divide 84 by 400. *(Lesson 9.4)*

(A) 0.21 (B) 0.84

(C) 2.1 (D) 8.4

8. Simplify $16p + 5 - 3p - 2$. *(Lesson 5.2)*

(A) $19p + 7$ (B) $19p - 3$

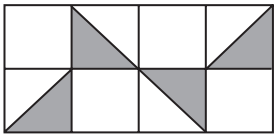
(C) $13p + 3$ (D) $13p - 3$

9. For what value of y will the inequality $4y - 8 > 10$ be true? *(Lesson 5.3)*

(A) 2 (B) 3

(C) 4 (D) 5

10. What percent of the figure is shaded? *(Lesson 10.1)*



(A) 25% (B) 35%

(C) 40% (D) 50%

11. The price of a cell phone is \$500. Kathleen pays 8% sales tax on the price of the cell phone. How much sales tax does she pay? *(Lesson 10.4)*

(A) \$400 (B) \$50

(C) \$40 (D) \$8

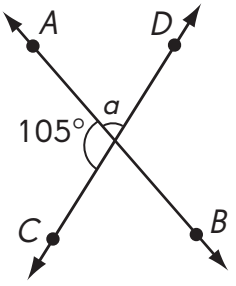
12. $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ are lines. Find the measure of $\angle a$. *(Lesson 12.1)*

(A) 180°

(B) 105°

(C) 75°

(D) 57°



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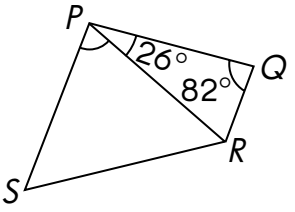
13. The sides of triangle ABC are in whole inches. $AB = 5$ inches and $BC = 11$ inches. Which of these is a possible length for $\overline{AC}$? *(Lesson 13.4)*

(A) 3 inches
(B) 6 inches
(C) 12 inches
(D) 16 inches

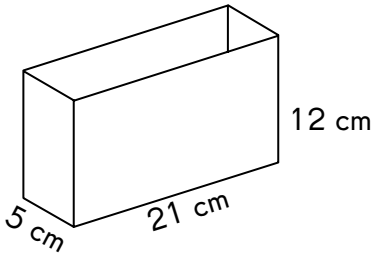
14. In the trapezoid $PQRS$, $\overline{PS} \parallel \overline{QR}$. Find the measure of $\angle SPR$. *(Lesson 13.5)*

(A) 98°
(B) 72°
(C) 52°
(D) 26°

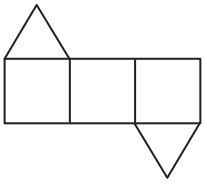


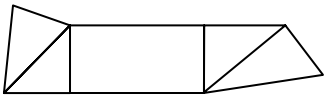
15. How many 1-centimeter cubes can be put into the box? *(Lesson 15.5)*

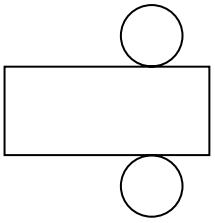
(A) 38
(B) 1,200
(C) 1,260
(D) 1,620

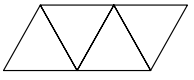


16. Which of these nets can form a triangular pyramid? *(Lesson 14.1)*

(A)


(B)


(C)


(D)


Short Answer

Read the questions carefully. Write your answers in the spaces provided. Show your work.

17. The ratio of the volume of water in bucket A to the volume of water in bucket B is 3 : 5. The total volume of water in the two buckets is 56 liters. What is the volume of water in bucket B? *(Lesson 7.3)*

_____

18. Write 12 ones and 3 tenths 2 hundredths 5 thousandths in expanded form. *(Lesson 8.1)*

_____

19. What is the missing number in the equation? *(Lesson 9.4)*

$9.42 = 9{,}420 \div \square$ _____

20. Order the decimals from least to greatest. *(Lesson 8.2)*
11.05, 11.00, 11.10, 11.009

_____

21. $\frac{3}{8}$ of the regular price of a digital watch is \$21. The price of the digital watch after discount is \$21. Find the dollar amount of the discount. *(Lesson 10.4)*

_____

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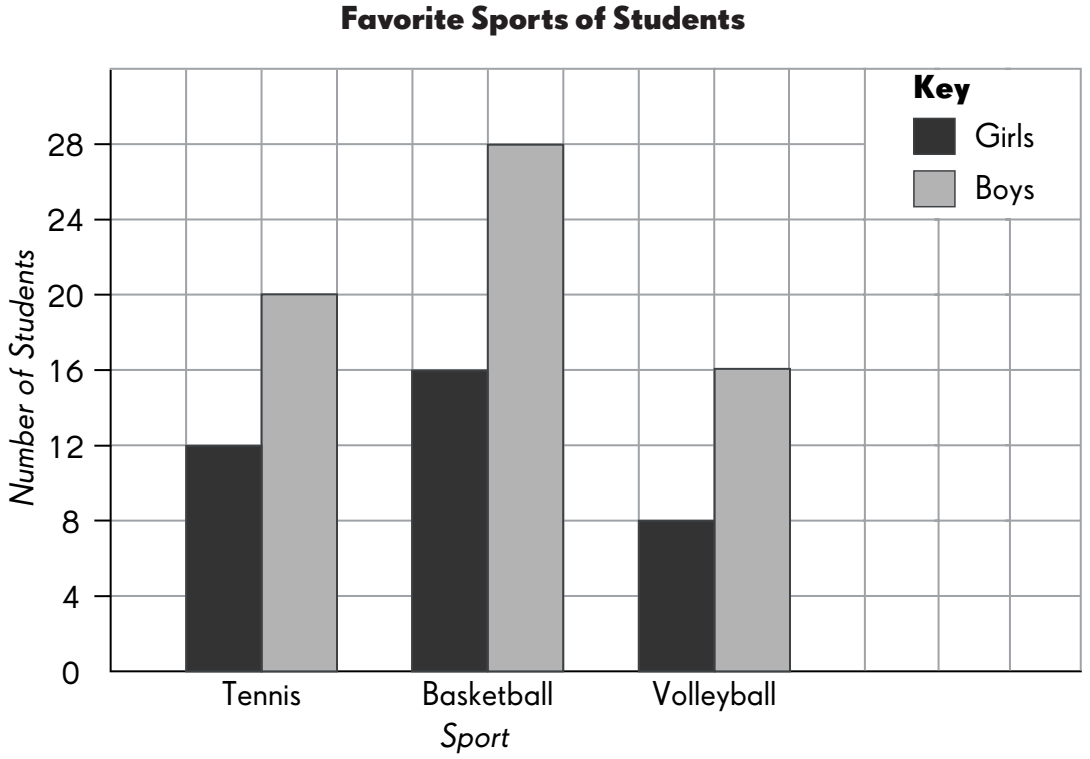
Use the data in the bar graph to answer questions 22 and 23.



22. For which sport is the difference between the number of boys and girls the greatest? *(Lesson 11.1)*

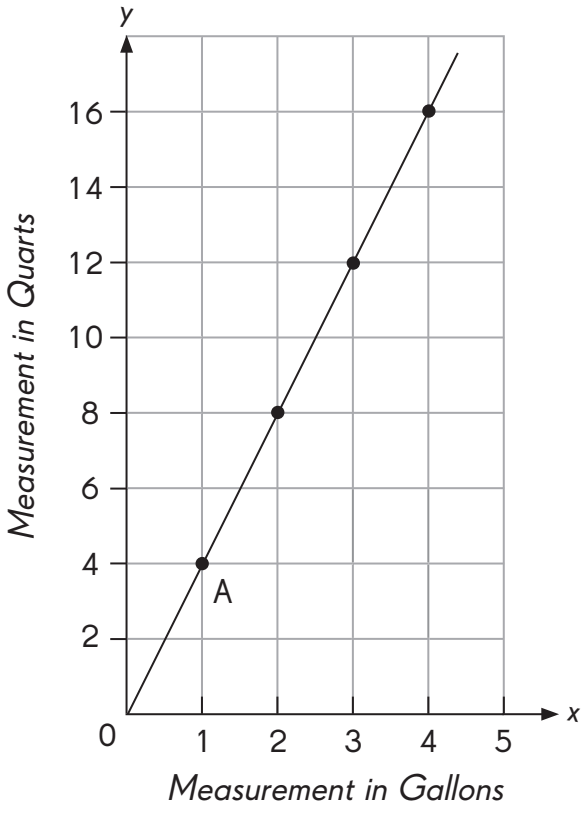
_____

23. How many more boys than girls prefer tennis? *(Lesson 11.1)*

_____

Use the data in the graph to answer questions 24 and 25.

Conversion Between Gallons and Quarts



24. Mrs. Richards buys 8 quarts of milk in 4 days. How many gallons of milk does she buy? *(Lesson 11.2)*

_____

25. What is the equation of the graph? *(Lesson 11.2)*

_____

26. Mrs. Mani has 1 orange, 1 apple, 1 peach and 1 apricot. She has 3 different flavored yogurt bars. She packs one fruit and one yogurt bar into a lunch box. Find the number of combinations she can pack in one box. *(Lesson 11.3)*

_____

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27. A box contains 6 red pens, 4 blue pens, 8 green pens, and some black pens. Leslie picks a pen and returns it to the box each time. The outcomes are recorded in the table.

Number of Times a Red Pen is Picked	Number of Times a Blue Pen is Picked	Number of Times a Green Pen is Picked	Number of Times a Black Pen is Picked
8	5	14	3

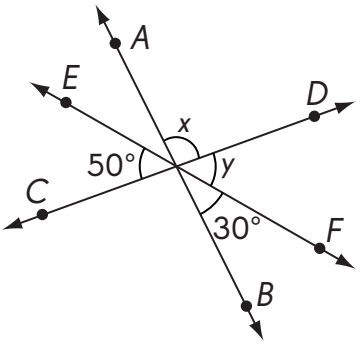
a. What is the experimental probability of drawing a green pen? *(Lesson 11.4)*

_____

b. If the theoretical probability of drawing a black pen is $\frac{1}{10}$, how many black pens are in the box? *(Lesson 11.4)*

_____

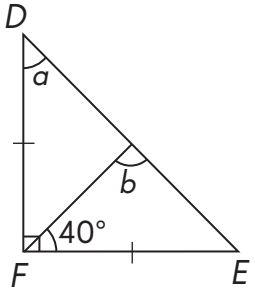
28. $\overleftrightarrow{AB}$, $\overleftrightarrow{CD}$ and $\overleftrightarrow{EF}$ are lines. Find the measures of $\angle x$ and $\angle y$. *(Lessons 12.1 and 12.3)*



$m\angle x =$ _____

$m\angle y =$ _____

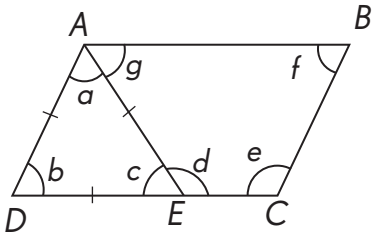
29. In triangle DEF, $DF = EF$. Find the measures of $\angle a$ and $\angle b$. *(Lessons 13.2 and 13.3)*



$m\angle a =$ _____

$m\angle b =$ _____

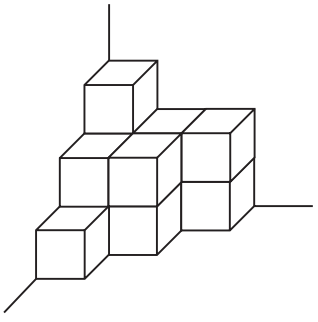
30. *ABCD* is a parallelogram and *ADE* is an equilateral triangle. Identify all the angles that have the same measure as $\angle f$. *(Lessons 13.3 and 13.5)*



31. Brian has \$50. He buys 10 similar books and has x dollars left. What is the cost of each book? *(Lesson 5.4)*

32. A solid figure has 2 flat surfaces, 1 curved surface, no edges and no vertices. Name this solid figure. *(Lesson 14.2)*

33. How many unit cubes are used to build the solid? *(Lesson 15.1)*



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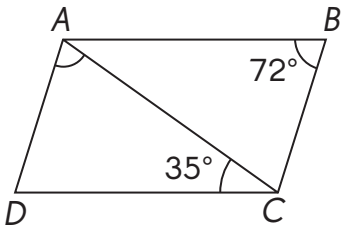
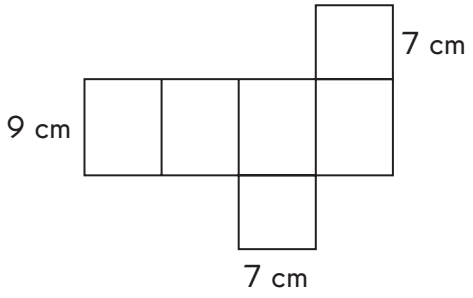
34. $ABCD$ is a parallelogram. Find the measure of $\angle DAC$. *(Lesson 13.5)*



_____

35. The net of a square prism is as given. Use the net to find the surface area of the prism. *(Lesson 15.3)*

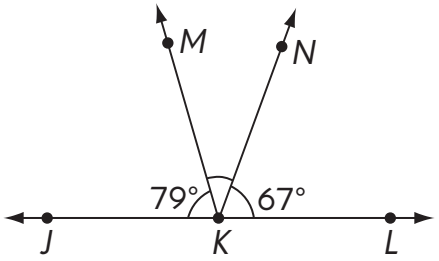


_____

36. Express $3\frac{1}{5} + 2\frac{1}{20}$ as a decimal. *(Lesson 3.5)*

_____

37. $\overleftrightarrow{JL}$ is a line. Find the measure of $\angle MKN$. *(Lesson 12.1)*



_____

Extended Response

Solve. Show your work.

38. There are 450 seats in a theater. 48% of the seats are occupied. How many seats are not occupied?

39. The area of a plot of land is 2,496 square meters. A small part of the land is fenced. The ratio of the area of the plot of land to the area that is not fenced is 48 : 31. What is the area of the land that is not fenced?

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40. Harry buys a sofa set that costs $2,000. He pays for it by installments at an interest rate of 5% per year.
What is the total amount he has to pay at the end of one year?

41. Mrs. Jacobs buys 20 kilograms of rice at $0.84 per kilogram.
She buys 700 grams of shrimp at $1.02 per 100 grams.
How much does she spend in total?

42. A fish tank measures 40 centimeters by 25 centimeters by 24 centimeters. It is filled with water from a tap. The fish tank is $\frac{5}{8}$ full in 6 minutes. Find the volume of water that flows from the tap each minute.

43. Mrs. Jackson has $90. She spends $\frac{1}{4}$ of her money on food, $\frac{1}{2}$ of the remainder on clothes and saves the rest. How much does she save?

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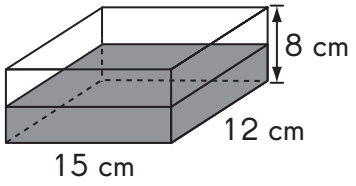
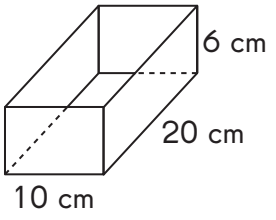
44. Team A has 42 members. Team B has 18 more members than team A. What percent of the members from team B must be transferred to team A so that team A has as many members as team B?

45. An equal amount of water is poured into two empty tanks, *P* and *Q*. Tank *P* is then $\frac{1}{2}$-filled. What fraction of tank *Q* is filled with water?



P



Q

46. There is some water in a tank. Water is then poured into the tank until the volume of water is 8 times as much as the initial volume of water in the tank. When another 16.75 liters of water is added, the total volume of water in the tank becomes 20.35 liters. How much water is in the tank at first? Give your answer in liters.