

Rising Grade 5 Summer Math Packet

The problems in this packet are designed to help you review topics from previous mathematics courses that are essential to your success in grade 4. You are expected to bring this completed packet to class on the first day of school. In addition, this packet will count as part of your first-quarter grade. **Upon returning, you will be ASSESSED on the content of this packet.** All content outlined in the packet is grade 4 material. Neatly SHOW YOUR WORK!

1. Create an area model to represent 14×17 . Find the product.
2. In which number is the value of the underlined digit ten times as great as the value of the bold digit?
A 564,208
B 368,4**1**1
C 175,192
D 113,74**1**
3. What is the product of 42 and 5?
A Draw a picture to represent the problem.

B Write and solve an equation to determine the product.
4. Each year, Rochelle bakes pies to donate to a shelter. Throughout the year, she baked 22 pumpkin pies, 35 apple pies, and 17 blueberry pies. Each pie was cut into 10 equal slices. How many slices of pie did Rochelle donate to the shelter?
A 74 slices
B 222 slices
C 740 slices
D 2,220 slices
5. Find the difference. $706 - 259$
6. Which of the following expressions correctly uses mental math to find the product of 3×58 ? Select all that apply.
☐ $3 \times (50 \times 8)$
☐ $(3 \times 50) + (3 \times 8)$
☐ $3 + (50 \times 8)$
☐ $3 \times 5 \times 8$
☐ $(3 \times 60) - (3 \times 2)$

7. Lucas baked 18 dozen chocolate chip cookies and 15 dozen peanut butter cookies. About how many cookies did Lucas bake?
- A** 400
B 270
C 150
D 30

8. Select the partial products needed to find the final product. Select all that apply.

☐ 36	54
☐ 360	$\times 29$
☐ 80	
☐ 800	450
☐ 1,000	☐
	1,566

9. **A** Which of the following is the best estimate of the product 9×286 ?
- A** $10 \times 200 = 2,000$
B $9 \times 200 = 1,800$
C $9 \times 300 = 2,700$
D $10 \times 400 = 4,000$
- B** Find the product of 9×286 .

10. Choose each problem with the appropriate factors that are compatible numbers.

	30×40	20×25	20×30	25×50
26×49	☐	☐	☐	☐
22×31	☐	☐	☐	☐
19×26	☐	☐	☐	☐
29×38	☐	☐	☐	☐

11. **A** Which place value should you use to compare the numbers?
- 721,385
 721,585
- A** Ten thousands **C** Hundreds
B Thousands **D** Tens
- B.** Compare 721,385 and 721,585.
- A** $721,385 > 721,585$
B $721,385 < 721,585$
C $721,385 = 721,585$
D $721,585 < 721,385$

12. A. Which basic multiplication fact can you use to find the product of 60 and 30?

A $6 \times 3 = 18$ **C** $9 \times 3 = 27$

B $3 \times 5 = 15$ **D** $8 \times 2 = 16$

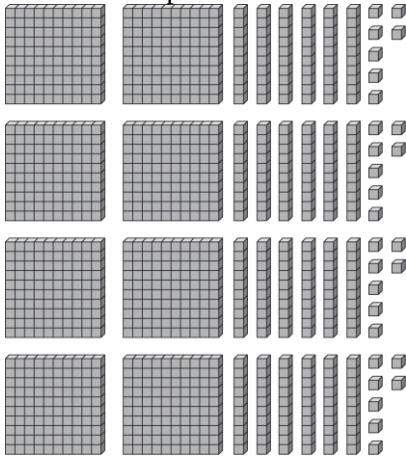
B. Use mental math to find the product of 60 and 30.

13. Find the difference.

$4,007 - 2,789$

14. Anthony has 4 times as many crayons as Maria. Maria has 47 crayons. Darlene has 173 crayons. Who has more crayons, Anthony or Darlene?

15. A Which expression best describes the model below?



A 2×447

C 4×267

B 6×800

D 2×276

B. What are the partial products shown in the array in A?

A $14 + 80 + 800 = 894$

B $28 + 240 + 800 = 1,068$

C $0 + 0 + 4800 = 4,800$

D $28 + 24 + 800 = 852$

16. A shoe store sells boots, sandals, and sneakers. About how many more sneakers did the store sell than sandals and boots combined?

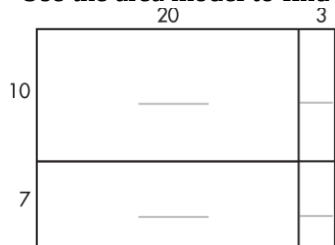
Items Sold		
Boots	Sandals	Sneakers
5,362	7,741	22,179

17. If an area model were used to help find 37×26 , what partial products would be found? Find the product.

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18. Estimate by rounding 938,617 and 254 to the nearest hundred, and then find the difference. Write the number name for the difference.

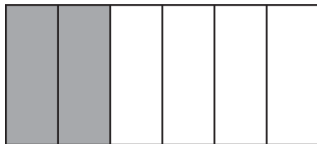
19. Four friends are flying to Orlando, Florida. About how much will the friends save by buying the less expensive fare? Explain.

20. Use the area model to find the partial products for 23×17 . Then find the product.



21. Todd uses 21 white tiles and some black tiles to make a mosaic. The mosaic has a total area of 144 square centimeters. Each tile has an area of 3 square centimeters. How many black tiles did Todd use? Explain.

-
22. Use the model to help write a fraction equivalent to $\frac{2}{6}$. Explain.



23. Estimate the quotient.
 $582 \div 8$

24. Jon finds two prime numbers between 70 and 80. What are these two numbers?

- A 71 and 74 C 77 and 79
B 73 and 77 D 71 and 73

-
25. Jamal carved 57 spoons on Saturday and 42 spoons on Sunday. He sells 3 spoons per package at a craft fair. How many packages of spoons did Jamal make? Explain.

26. Jeanne will use more than $\frac{2}{4}$ cup of sugar but less than 1 cup of sugar for a recipe. Which benchmark fraction of a cup does Jeanne use?

A $\frac{1}{2}$

B 1

C $\frac{1}{4}$

D $\frac{3}{4}$

27. A Estimate $55 \div 7$.

B What is the remainder of $55 \div 7$?

28. At the end of a game, the Wildcats have 2 points and the Lancers have 6 points. Cassie says the Lancers scored 4 more points than the Wildcats. Mark says the Lancers scored 3 times as many points as the Wildcats. Who is correct? Explain.

A Cassie is correct. I subtracted 2 from 6 and got 4, so Cassie is correct.

B Mark is correct. I multiplied 2 by 3 and got 6, so Mark is correct.

C Neither are correct. I multiplied 4 by 2 and got 8, so Cassie is incorrect. I subtracted 3 from 6 and got 3, so Mark is incorrect.

D Both are correct. I subtracted 2 from 6 and got 4, so Cassie is correct. I multiplied 2 by 3 and got 6, so Mark is correct.

29. A What is 75 divided by 5?

A 10

B 15

C 25

D 30

B. Which equation shows a way to check your answer in A?

A $80 - 5 = 75$

B $15 \times 5 = 75$

C $30 + 5 = 35$

D $70 \div 5 = 14$

30. Use benchmark fractions to compare $\frac{5}{6}$ and $\frac{4}{10}$. Explain.

31. Name three numbers that are multiples of 3 and multiples of 4.

32. A What is 132 divided by 6?

B Which equation shows a way to check your answer in A?

A $6 \div ? = 132$

B $132 \times ? = 6$

C $6 \times ? = 132$

D $6 + ? = 132$

33. A Fred tried to find an equivalent fraction for $\frac{2}{3}$. His work is shown below.

$$\frac{2}{3} = \frac{2 \cdot 1}{3 \cdot 3} = \frac{2}{9}$$

Which statement describes Fred's error?

A It is impossible to find a fraction equivalent to $\frac{2}{3}$.

B He did not multiply $\frac{2}{3}$ by a fraction equal to 1.

C He incorrectly multiplied $\frac{2}{3}$ and $\frac{1}{3}$

D He should have divided by $\frac{1}{3}$.

B. Which of the following is an equivalent fraction to $\frac{2}{3}$?

A $\frac{1}{3}$

B $\frac{6}{9}$

C 1

D $\frac{4}{9}$

34. A. Use number sense and place value to divide 455 by 5.

A 100

B 92

C 91

D 51

B. Which expression can you use to check your answer in A?

A $5 \times (100 + 40)$

B $5 \times (90 + 5)$

C $5 \times (90 + 1)$

D $90 \times (10 + 5)$

35. Select all the statements with correctly estimated quotients.

- ☐ $2,074 \div 3$ is about 500.
☐ $2,531 \div 5$ is about 500.
☐ $4,217 \div 8$ is about 700.
☐ $6,262 \div 9$ is about 600.
☐ $7,187 \div 9$ is about 800.

36. Draw a number line to show that $\frac{1}{4}$ is equivalent to $\frac{3}{12}$.

37. Write the factor pairs for 12. Is 12 prime or composite? Explain.

- A 1 and 12, 2 and 6, 3 and 4; 12 is composite because it has more than one factor pair.
 B 1 and 12, 2 and 6; 12 is composite because it has more than one factor pair.
 C 1 and 12; 12 is prime because it has one factor pair.
 D 4 and 3; 12 is prime because it has one factor pair.

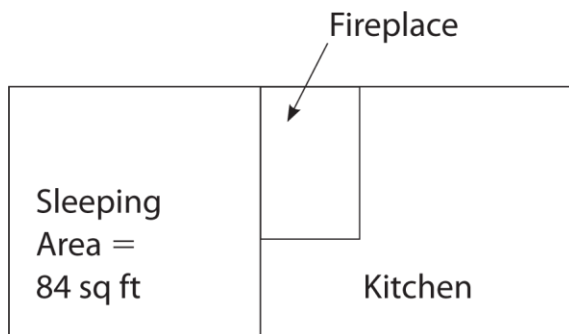
38. Complete the partial quotient model to find $768 \div 4$.

$$\begin{array}{r}
 \begin{array}{l} \square \\ 90 \end{array} \left. \vphantom{\begin{array}{l} \square \\ 90 \end{array}} \right\} 1 \begin{array}{l} \square \\ \square \end{array} \\
 \begin{array}{l} \square \\ 00 \end{array} \left. \vphantom{\begin{array}{l} \square \\ 00 \end{array}} \right\} \\
 \hline
 4 \overline{) 768} \\
 \underline{- \square 00} \\
 \square 68 \\
 \underline{- 3 \square 0} \\
 \square \\
 \underline{- 8} \\
 \square
 \end{array}$$

39. Which fraction is equivalent to $\frac{1}{4}$? Explain.

- A $\frac{1}{2}$; I multiplied $\frac{1}{4}$ by $\frac{2}{1}$ to get $\frac{1}{2}$.
 B $\frac{4}{12}$; I multiplied $\frac{1}{4}$ by $\frac{4}{3}$ to get $\frac{4}{12}$.
 C $\frac{2}{8}$; I multiplied $\frac{1}{4}$ by $\frac{2}{2}$ to get $\frac{2}{8}$.
 D $\frac{5}{16}$; I multiplied $\frac{1}{4}$ by $\frac{5}{4}$ to get $\frac{5}{16}$.

40. Michelle's group made a scale drawing of a cabin for a school project. The sleeping area is four times as many square feet as the fireplace. The kitchen is 21 square feet larger than the sleeping area. How much area do the fireplace and the kitchen each have? Explain.

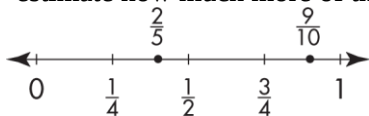


41. The set of triangles below is shaded to represent a fraction.



Lee says that the fractions $\frac{2}{3}$ and $\frac{4}{6}$ name the part of the set that is shaded. Is Lee correct? If not, list two fractions that name the part of the set that is shaded. Explain your reasoning.

42. Sherry has finished $\frac{9}{10}$ of the test. Ben has finished $\frac{2}{5}$ of the test. Use benchmark fractions to estimate how much more of the test Sherry has finished than Ben has finished.



- A. About the same
- B. About $\frac{1}{4}$ more
- C. About $\frac{1}{2}$ more
- D. About $\frac{3}{4}$ more

43. Write a multiplication fact that can be used to find the quotient $152 \div 5$, and then find the exact quotient.

-
44. Three friends made a 12-piece quilt for the state fair. Inez sewed $\frac{1}{2}$ of the quilt, Betty sewed $\frac{4}{12}$ of the quilt, and Cass sewed 2 pieces. Which friend sewed the most pieces? Explain.

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45. A garter snake is 11 inches long. If a python is 9 times as long as the garter snake, how much longer is the python? Write and solve equations

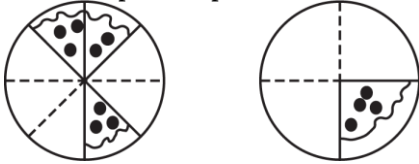
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46. Which shows the factors of 32 that are also multiples of 4?

- A. 1, 32
- B. 1, 2, 16, 32
- C. 4, 8, 16, 32
- D. 2, 4, 8, 16, 32, 64

-
47. Which comparison is true?

- A. $\frac{2}{8} < \frac{1}{4}$
- B. $\frac{4}{8} < \frac{1}{4}$
- C. $\frac{5}{12} > \frac{1}{3}$
- D. $\frac{3}{6} < \frac{3}{4}$

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48. The two pans of pizza show what was left after the Chavez family finished eating dinner.



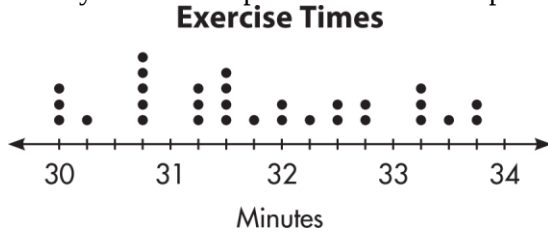
Which of the following compares the portion of pizza left on each pan? Explain your answer.

- A. $\frac{3}{8} > \frac{1}{4}$, $\frac{1}{4} = \frac{2}{8}$, and $\frac{2}{8} < \frac{3}{8}$.
- B. $\frac{3}{8} < \frac{1}{4}$; the slice on the right pan is bigger than the slices on the left pan.
- C. $\frac{3}{8} = \frac{1}{4}$; there is $\frac{1}{3}$ of each pizza left.
- D. $\frac{3}{4} > \frac{5}{8}$, $\frac{3}{4} = \frac{6}{8}$ and $\frac{6}{8} > \frac{5}{8}$

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49. Barb says the sum of two prime numbers must also be prime. Hanna disagrees. Who is correct? Explain.

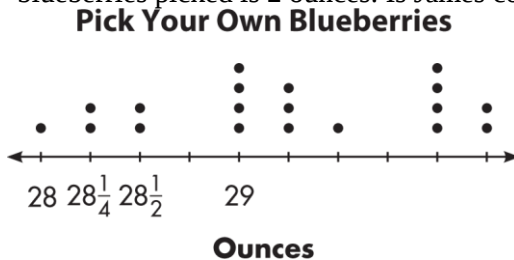
50. Without dividing, how can you tell if the quotient for $4,637 \div 7$ is greater than 600? Explain whether the quotient is less than 700.

51. Nancy made a line plot of the time she spent exercising per day last month.



What is the difference between her longest exercise time and her most frequent exercise time?

- A. 3 minutes
- B. $3\frac{3}{4}$ minutes
- C. $3\frac{2}{4}$ minutes
- D. $3\frac{1}{4}$ minutes
-
52. Mira has 12 pieces of wire that she is using for a project. If each piece of wire is $\frac{3}{4}$ -inch long, how many inches of wire does Mira have in all? Write the equation you used to find your answer.
53. Mrs. Goldsmith's class took a fieldtrip to a blueberry farm. The line plot shows the number of ounces of blueberries each student picked. James says the difference between the most and the least blueberries picked is 2 ounces. Is James correct? Explain.



54. The table shows the shipping prices for online orders. Karen's package weighs 5.01 pounds and Tara's package weighs 5.10 pounds. Whose package weighs more? Who will pay more in shipping?

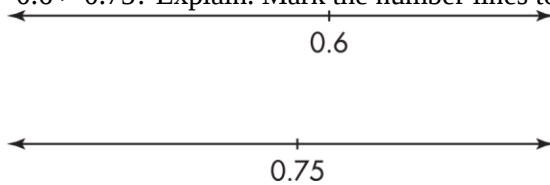
Shipping Rates

Pounds	Cost
1.00–2.99	\$4.50
3.00–4.99	\$6.25
5.00–7.99	\$8.00

55. Jasmine earned \$14 as an allowance. She bought a book for \$5.31. She gave her brother \$2.50. She put the rest in her piggy bank. How much money did Jasmine put in her piggy bank? Use or draw bills and coins to solve.
- A. \$7.81
B. \$7.29
C. \$6.81
D. \$6.19

56. Terry walks $\frac{1}{4}$ mile each morning and $\frac{2}{4}$ mile each afternoon. How far does Terry walk in 3 days? Draw bar diagrams and write equations to solve the problem.

57. Do the number lines show $0.6 > 0.75$? Explain. Mark the number lines to support your reasoning.



58. Charlie used a number line to show the distance from school to his house and the distance from school to Marie's house. How much farther is Marie's house than Charlie's house from school?



- A. $\frac{1}{10}$ mile
B. $\frac{3}{10}$ mile
C. $\frac{5}{10}$ mile
D. $\frac{8}{10}$ mile
59. Monday night Tyrell spent $\frac{2}{6}$ hour on his homework and Eva spent $\frac{5}{6}$ hour on her homework.
- A. How much more time did Eva spend on homework than Tyrell?
- A. $1\frac{1}{6}$ hours C. $\frac{2}{6}$ hours
B. $\frac{3}{6}$ hours D. $\frac{1}{6}$ hours
- B. Tyrell wakes up early Tuesday morning and spends an extra $\frac{4}{6}$ hour doing homework. Who spent more time doing homework in all?

60. Find the sum and difference of $\frac{7}{12}$ and $\frac{3}{12}$?

A. The sum is $\frac{10}{12}$; the difference is $\frac{9}{12}$.

B. The sum is $\frac{10}{12}$; the difference is $\frac{4}{12}$.

C. The sum is $\frac{9}{12}$; the difference is $\frac{4}{12}$.

D. The sum is $\frac{11}{12}$; the difference is $\frac{9}{12}$.

61. The instructions for a pie are to bake it for 1 hour, 35 minutes. The pie has already baked for 50 minutes. How many more minutes does the pie need to bake?

1 hour 35 minutes	
50 minutes	x

A. 45 minutes

B. 35 minutes

C. 25 minutes

D. 15 minutes

62. A store sold $6\frac{2}{5}$ cases of sunscreen one week. The store only sold $4\frac{4}{5}$ cases the next week.

A. How many more cases of sunscreen did the store sell the first week than the second week?

A. $4\frac{4}{5}$ cases C. $1\frac{4}{5}$ cases

B. $2\frac{2}{5}$ cases D. $1\frac{3}{5}$ cases

B. If the store had $15\frac{1}{5}$ cases of sunscreen at the start of the first week, how many cases are left?

63. Draw a number line and plot a point at each number shown.
1.75, 1.35, 1.6

64. Find the sum.

$$6\frac{5}{12} + \frac{7}{12}$$

A. $4\frac{10}{12}$

C. $7\frac{2}{12}$

B. $6\frac{10}{12}$

D. 8

65. Soccer practice starts at 6:20 P.M. Alana needs 40 minutes to eat dinner, 15 minutes to get ready, and 20 minutes to get to the practice field. What is the latest time Alana should begin eating dinner if she wants to be on time for soccer practice?

A. 5:00 P.M.

C. 5:15 P.M.

B. 5:05 P.M.

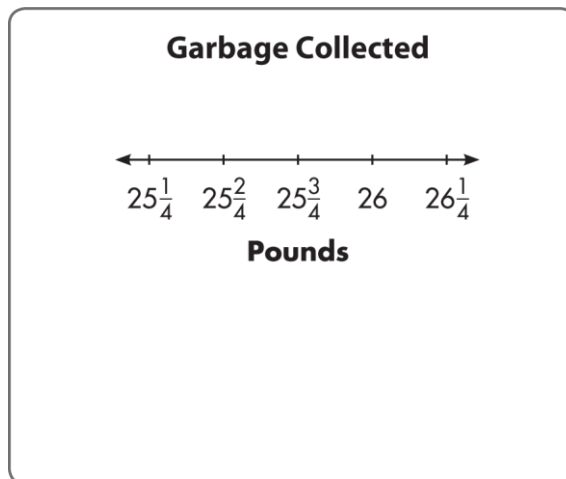
D. 5:20 P.M.

- 66.** Emma read $\frac{3}{13}$ of her book on Saturday and $\frac{5}{12}$ of her book on Sunday. She read $\frac{2}{12}$ of her book on Monday. How much more of the book did Emma read over the weekend than on Monday? Draw bar diagrams and write and solve equations.

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- 67.** Kiesha fills a measuring cup with $\frac{2}{3}$ cup of milk 5 times to make ice cream. How much milk does Kiesha use?

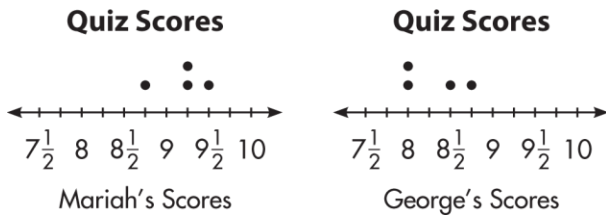
- 68.** Compare 0.14 and 1.4.

-
- 69.** All the students at Lakeview Elementary helped clean up a local park. The number of pounds of garbage collected by the top classes were 26, $25\frac{1}{4}$, $26\frac{1}{4}$, $25\frac{3}{4}$, $25\frac{1}{4}$, $25\frac{3}{4}$, and $25\frac{2}{4}$. Complete the line plot showing the number of pounds of garbage collected. Did most top classes collect more than or less than 26 pounds?



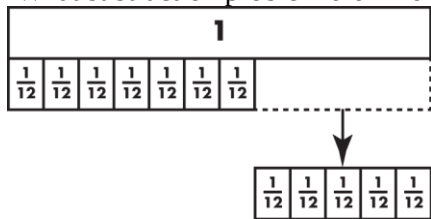
- 70.** Add $\frac{7}{10} + \frac{46}{100}$

- 71.** In Mr. Daniels' class, all quizzes are worth 10 points. Mr. Daniels gives partial credit for the work that is shown. The line plots show Mariah's and George's scores on four quizzes. How much greater was Mariah's highest score than George's highest score?



72. Draw a picture to find the product of $2 \times \frac{3}{5}$.

73. What subtraction problem did Andrea show using the fraction strips below?



74. Patrick compares two amounts of money. Is the comparison correct? Explain.
 $\$23.15 > \25.84

75. Erin buys a jewelry set for $\$27.63$. She pays with two $\$20$ bills. List Erin's change using the least number of coins and bills. Draw or use coins and bills to solve.

76. Four friends want to run 4 miles total. If they have run $2\frac{1}{8}$ miles so far, which shows how much each friend could have run?

- A $\frac{1}{8} + \frac{1}{8} + \frac{3}{8} + \frac{4}{8}$
- B $\frac{6}{8} + \frac{2}{8} + \frac{5}{8} + \frac{4}{8}$
- C $\frac{2}{8} + \frac{4}{8} + \frac{2}{8} + \frac{8}{8}$
- D $\frac{2}{8} + \frac{4}{8} + \frac{4}{8} + \frac{4}{8}$

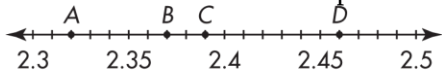
77. A. Select all the expressions that represent the following: Peter walked $\frac{5}{8}$ mile each day for 10 days.

- ☐ $10 \times \frac{5}{8}$
☐ $10 \times \frac{1}{8}$
☐ $5 \times 2\frac{2}{8}$
☐ $10 \times 5 \times 8$
☐ $\frac{5}{8} + \frac{5}{8} + \frac{5}{8} + \frac{5}{8} + \frac{5}{8} + \frac{5}{8} + \frac{5}{8} + \frac{5}{8} + \frac{5}{8} + \frac{5}{8}$

- B. How far did Peter walk in all?

78. Timothy completed a bicycle course to raise money for an animal shelter in his community. It took him $3\frac{3}{6}$ hours to complete the first part of the course, $2\frac{5}{6}$ hours to complete the second part of the course, and $1\frac{2}{6}$ hours to complete the last part of the course. How long did it take Timothy to complete the entire course?

79. Name the decimal for each point on the number line.



A = C =
B = D =

80. Andrew works in a law office. One day, he spent 2 hours 13 minutes answering phone calls, 1 hour 47 minutes returning emails, and 3 hours 26 minutes preparing presentations. How long did Andrew work?
81. Larry measures an object's mass in grams. Which of the following objects is he most likely measuring?
A A lemon
B A car
C A surfboard
D A horse
82. Marco has 2 pieces of rope that are each 8 yards long. How many feet of rope does Marco have? Explain.

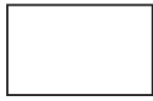
83. A. Which figure below has more than one line of symmetry?



Octagon



Pentagon



Pentagon



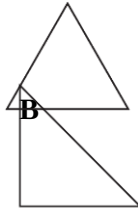
Triangle

- A Octagon C Rectangle
B Pentagon D Triangle

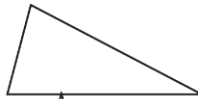
- B. What is the total number of lines of symmetry for all of the figures shown in A?

84. A. Diego draws an example of a right triangle. Which triangle could be Diego's drawing?

A



C



B

D



- B. What type of triangle is shown the most in the answer choices in A?

- A Acute triangle
B Right triangle
C Obtuse triangle
D Equilateral triangle

85. A. Complete the table to show the number of triangles in each figure if the pattern shown continues.

Rule:

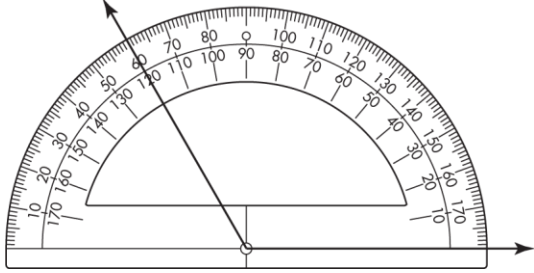


$1 \times 1 = 1$ $2 \times 2 = 4$ $3 \times 3 = 9$

Figure	7	9	11	13
Triangles		81		

- B. Write the rule for the number of triangles in words.

86. Which is the measure of the angle shown? What type of angle is it?



- A 60°; acute C 140°; acute
B 120°; obtuse D 180°; obtuse

87. What is the measure of the angle formed by the hands of the clock?



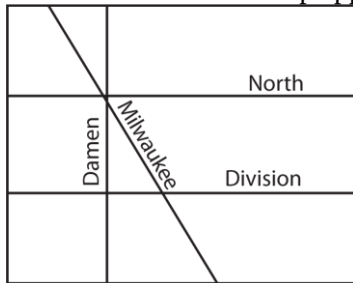
- A 45° C 180°
B 90° D 360°

88. What are all the names that could be used for the shape below? Explain.



- A Quadrilateral, trapezoid; the shape appears to have 1 pair of parallel sides.
B Quadrilateral, parallelogram, rectangle; the shape appears to have 2 pairs of parallel sides and 4 right angles.
C Quadrilateral, parallelogram, rhombus; the shape appears to have 2 pairs of parallel sides and 4 sides of equal length.
D Quadrilateral, parallelogram, square; the shape appears to have 2 pairs of parallel sides of equal length and 4 right angles.

89. Which streets on the map appear to be parallel to each other?

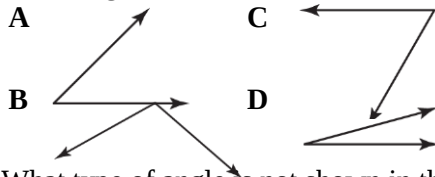


- A North and Damen
- B North and Milwaukee
- C Milwaukee and Division
- D Division and North

90. Remy wanted to measure the angle of a slide at the playground. He used a sheet of folded paper that formed a 25° angle. He measured and found that two of the folded paper angles would fit in the angle made by the slide and the ground. What was the angle of the slide? Write an equation modeling Remy's work.

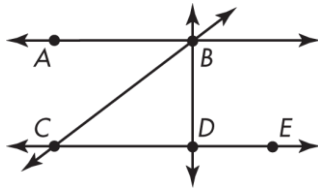
- A $45^\circ \times 3 = 75^\circ$
- B $25^\circ \times 2 = 50^\circ$
- C $25^\circ + 20 = 45^\circ$
- D $15^\circ \times 3 = 30^\circ$

91. A. Which angle is NOT acute?



- B. What type of angle is not shown in the answer choices for A?

92. Which angle below is an acute angle?



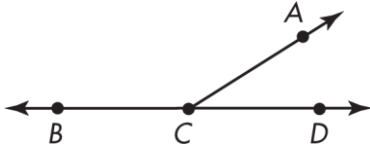
- A $\angle ABD$
- B $\angle BDC$
- C $\angle BCD$
- D $\angle CDE$

93. The perimeter of the rectangle shown below is 28 centimeters.



What is the area of the rectangle? Explain.

94. $\angle ACD$ measures 32° . Which equation gives the measure of $\angle ABC$?



- A $100^\circ + 32^\circ = 132^\circ$
B $180^\circ - 32^\circ = 148^\circ$
C $90^\circ + 32^\circ = 122^\circ$
D $90^\circ \times 2 = 180^\circ$
-
95. A. Seth's book weighs 3 pounds, and his pencil case weighs 4 ounces. Which is the total weight of the book and pencil case in ounces?
A 7 ounces
B 34 ounces
C 48 ounces
D 52 ounces
- B. For a different class, Seth's book weighs only half as much. What is the total weight of the second book and his pencil case?
A 1 pound 10 ounces
B 1 pound 12 ounces
C 2 pounds 4 ounces
D 3 pounds 2 ounces
-
96. How many lines of symmetry does this shape have?

- A 0
B 1
C 2
D 4



97. Rolland says that if two rectangles have different perimeters, they must also have different areas. Does Rolland's reasoning make sense? Explain.

-
98. Trevor knows that 1 pint equals 2 cups. His ice cream recipe calls for 4 pints of milk. How many cups of milk does Trevor need?
- A $\frac{1}{2}$ cup
B 2 cups
C 4 cups
D 8 cups

99. The first number in a pattern is 6. The pattern follows the rule “Add 1, Multiply by 2” Which of the following shows the next four numbers in the pattern?

- A** 7, 8, 9, 18
- B** 12, 13, 26, 27
- C** 7, 14, 15, 30
- D** 12, 14, 28, 28

100. A. Each plant in Micah’s garden has 7 blooms. Complete the table for 9 plants and 11 plants.

Plants	Blooms
3	21
5	35
7	49
9	
11	

B. Write an expression for the number of blooms for p plants.