Summer Work Challenge

Welcome to Fifth Grade! Mrs. Guarraia and Ms. Knickerbocker are excited to have you in our class next year. To keep your brain strong and have everything you need to be successful in fifth grade, we have prepared summer learning options for you to practice your math, reading and writing skills. Read the instructions for the Math Challenge, Fifth Grade Skills pages, Reading Challenge and Writing Challenge. **Make sure to color ALL your coins and return the challenge pages along with your most accomplished piece of writing on Orientation Day.**

MATH Challenge

Pick a way to keep your “Math Brain” sharp on the choice board. Each time you complete the challenge, color in a coin! Color ALL the coins by Orientation Day!

Complete a math review worksheet.	Complete a math review worksheet.	Complete a math worksheet.	Complete a math review worksheet.
Draw 5 cards from a deck of cards. Create the largest and smallest whole number. Repeat 10 times.	Create a board game to teach your multiplication facts to a family member. Make sure to include the rules.	Make a paper airplane and fly it. Measure how far it goes. Try several times. Record the distance in your Journal.	Write 3 division word problems. Solve them by drawing a model or picture and equation.
Vowels are worth $50 each, and consonants are worth $40. Can you make a word worth exactly $200? $600?	Write a letter to Mrs. K explaining how to solve a 3 digit by 2 digit multiplication problem. Include a diagram.	Make a poster explaining how to reduce or simplify a fraction. Include example problems.	Measure the perimeter of 3 rooms in your house. Draw a model of each room labels the sides and total perimeter.
Bake a treat. List the fractions you used from least to greatest.	Use a deck of cards to practice your multiplication facts.	Have an adult write down 5 decimals. Convert them to fractions.	Draw a design that has lines of symmetry.
Complete a math review worksheet.	Complete a math review worksheet.	Complete a math worksheet.	Complete a math review worksheet.

READING Challenge

Reading is EVERYWHERE! Each time you complete the challenge, color in a coin!
Color ALL the coins by Orientation Day!

Read a poetry book	Read with a flashlight.	Read to someone younger.	Read a fiction book.
Read outside.	Read a nonfiction book.	Read an adventure or fantasy book.	Read a book to learn something new.
Read a book about an animal.	Read a graphic novel.	Read with a friend.	Read a historical or science fiction book.
Read a biography or autobiography.	Read in the morning.	Read a mystery book.	Read at night.

WRITING Challenge

Unleash your inner WRITER! Experiment with different types of writing and try as many options as you can. On Orientation Day, bring your most accomplished piece – the one that makes you truly proud.

Write a short summary about a book you read.	Write about your favorite day or activity from fourth grade.	Write the step by step instructions to make your favorite food/snack.	Write a narrative about a time you lost something important. Did you find it?
Summer is the perfect time to try something new. Write about 3 new activities or experiences you want to try.	Write about how you can show kindness to others.	You are in charge of your family's vacation. Where are you going? What are you doing there?	Draw a picture of your favorite movie/show. Write a short paragraph about the picture.
Write a fictional story about how you would spend the entire day at the park with your friend.	Write about 3 goals you want to accomplish in 5th grade.	Describe a time you helped someone else. How did it make you feel?	Write your own ending to a book or movie you read/watched.
Invent a new game and write about the rules.	Write about what you would do if you were the teacher for a day.	Write about a time you faced a challenging obstacle. Did you overcome it?	Write about a place that is special to you. Why is it important?
Write a poem with 5 lines.	Describe a time you felt proud of yourself and why.	Write about your favorite stuffed animal or pet.	Which makes a better pet, cats or dogs? Why?

Summer BLESSINGS

Lord God, Creator of all things, guide our steps and strengthen our hearts, during these months of summer and vacation days. Grant us refreshment of mind and body. We ask this through Christ our Lord.

Adding Whole Numbers

1. Write the problem vertically, lining up the numbers to the right.
2. Add the ones digits of the numbers. If the sum is 10 or more, carry the tens digit and write the ones digit in the answer.
3. Repeat with the tens digits. Be sure to add in any carried digits, too!
4. Continue working right to left until there are no more digits to add.

ex: 5,938 + 746

$$\begin{array}{r} {\scriptstyle 1\ \ 1\ \ \ } \\ 5938 \\ +\ 746 \\ \hline 6684 \end{array}$$

→ 6,684

Subtracting Whole Numbers

1. Write the problem vertically, lining up the numbers to the right.
2. Subtract the ones digits of the numbers. If the top digit is less than the bottom digit, borrow. (Cross out the digit next to it and decrease it by one. Add 10 to the ones digit.) Then subtract the bottom digit from the new top one.
3. Repeat with the tens digits of the numbers.
4. Continue working right to left until there are no more digits to subtract.

ex: 458 - 268

$$\begin{array}{r} {\scriptstyle 3\ 15\ \ } \\ 4\not{5}8 \\ -\ 268 \\ \hline 190 \end{array}$$

→ 190

Rounding Whole Numbers

___	___	___	,	___	___	___
hundred-thousands	ten-thousands	thousands		hundreds	tens	ones

1. Keep all digits to the left of the place you are rounding the same.
2. If the digit to the right of the rounding digit is less than 5, keep the rounding digit the same. If it's 5 or greater, increase the rounding digit by 1.
3. Change all places to the right of the digit you are rounding to 0.

ex: round 34,647 to the nearest hundred

The 6 is in the hundreds place.

Keep the 34 the same.

After the 6 is a 4, which is less than 5, so the 6 stays the same and the numbers after it turn to zeroes.

→ 34,600

Find each sum or difference.

1. 89 + 74	2. 627 + 913	3. 723 + 11
4. 2,354 + 3,728	5. 1,925 + 89	6. 7,627 + 836
7. 53 – 31	8. 682 – 426	9. 844 – 79
10. 2,365 – 1,299	11. 3,014 – 45	12. 5,200 – 845

Round the number 245,382 to the nearest given place value.

13. hundred	14. ten-thousand	15. thousand	16. ten

Multiplying by 1-Digit Numbers

1. Write the problem vertically, with the greater number on top. Be sure to line up the numbers to the right.
2. Multiply the bottom number by the ones digit of the top number. Write down the ones digit of that answer and carry the tens digit.
3. Multiply the bottom number by the tens digit of the top number. If you carried a digit from the first product, be sure to add it to you your new product. Write down the ones digit of the answer and carry the tens digit.
4. Repeat with any remaining digits of the top number, working right to left.

ex: 892 x 6

$$\begin{array}{r} {\scriptstyle 5\ 1}\ 892 \\ \times\quad 6 \\ \hline 5352 \end{array}$$

→ 5,352

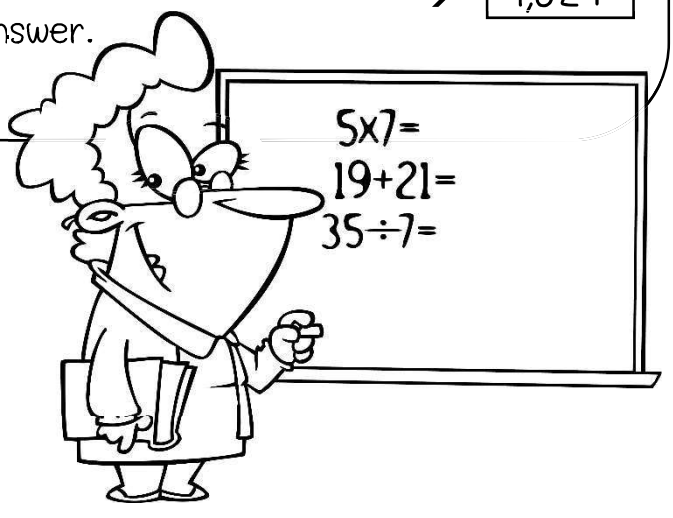
Multiplying Two 2-Digit Numbers

1. Write the problem vertically. Be sure to line up the numbers to the right.
2. Multiply the ones digit of the bottom number by each digit of the top number, right to left, (as explained in the multiplying by 1-digit numbers section above).
3. Bring down a zero.
4. Multiply the tens digit of the bottom number by each digit of the top number, right to left, (as explained in the multiplying by 1-digit numbers section above).
5. Add the two products together to get your final answer.

ex: 76 x 24

$$\begin{array}{r} {\scriptstyle 1\ 2}\ 76 \\ \times\ 24 \\ \hline +\ 304 \\ 1520 \\ \hline 1824 \end{array}$$

→ 1,824



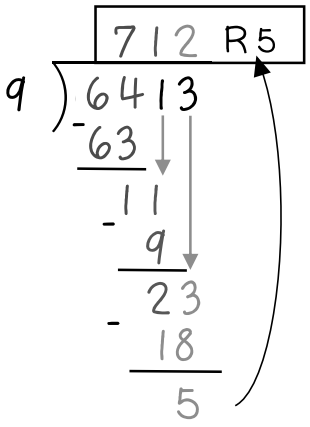
Find each product.

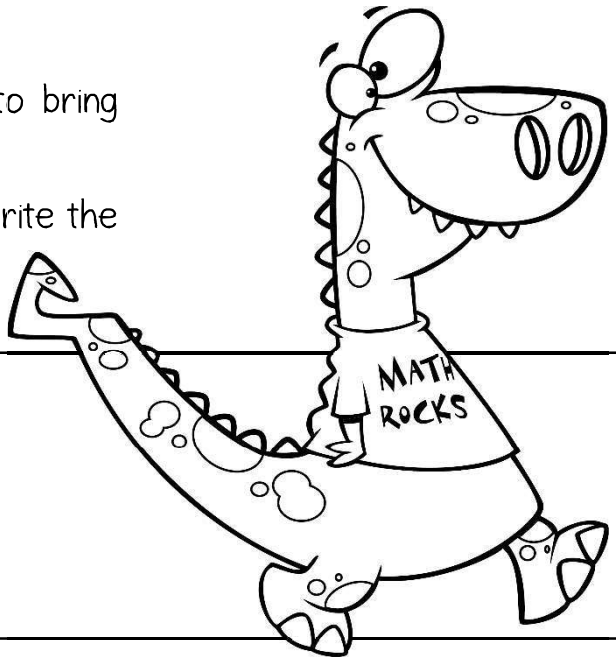
17. 24 x 7	18. 96 x 3	19. 57 x 2
20. 845 x 5	21. 910 x 8	22. 341 x 6
23. 1,387 x 4	24. 8,452 x 9	25. 5,023 x 8
26. 34 x 21	27. 84 x 13	28. 95 x 64
29. 32 x 20	30. 67 x 89	31. 72 x 44

Dividing with 1-Digit Divisors

1. Write out the long division problem with the first number (dividend) underneath the division symbol and the second number (divisor) to the left of the division symbol.
2. Divide the divisor into the smallest part of the dividend it can go into and write the number of times it can go in on top of the division symbol.
3. Multiply the number on top by the divisor and write the product under the number you divided into in step 2.
4. Subtract your product from the number above it.
5. Bring down the next digit of the dividend.
6. Repeat steps 2-5 until there is nothing left to bring down.
7. If your last subtraction answer is not zero, write the remainder on top.

ex: 6,413 ÷ 9





Checking Division Answers Using Multiplication

1. Multiply your quotient (not including the remainder) by the divisor.
2. Add your remainder to the product you get.
3. Make sure the answer you get is the same number as the dividend in the original problem.

ex: 6,413 ÷ 9 = 712 R 5

$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 712 \\ \times\ \ 9 \\ \hline 6408 \end{array}$$

$$\begin{array}{r} {\scriptstyle 1} \\ 6408 \\ +\ \ \ 5 \\ \hline 6413 \end{array}$$

Find each quotient. Check your answers using multiplication.

32. $95 \div 6$	33. $58 \div 2$	34. $86 \div 3$
35. $232 \div 4$	36. $512 \div 7$	37. $203 \div 8$
38. $625 \div 5$	39. $442 \div 9$	40. $102 \div 3$
41. $2{,}304 \div 6$	42. $1{,}832 \div 7$	43. $9{,}203 \div 8$

Greatest Common Factor

Factors are numbers that can be multiplied together to equal a given number.

To find the greatest common factor (GCF) of 2 or more numbers:

1. List all the factors of each number.
2. Find the largest number that is a factor of each number.

ex: find the GCF of 12 & 15

12 = 1 x 12, 2 x 6, 3 x 4

12: 1, 2, 3, 4, 6, 12

15 = 1 x 15, 3 x 5

15: 1, 3, 5, 15

GCF = 3

Least Common Multiple

Multiples are numbers that can be divided by a given number without a remainder.

To find the least common multiple (LCM) of 2 or more numbers:

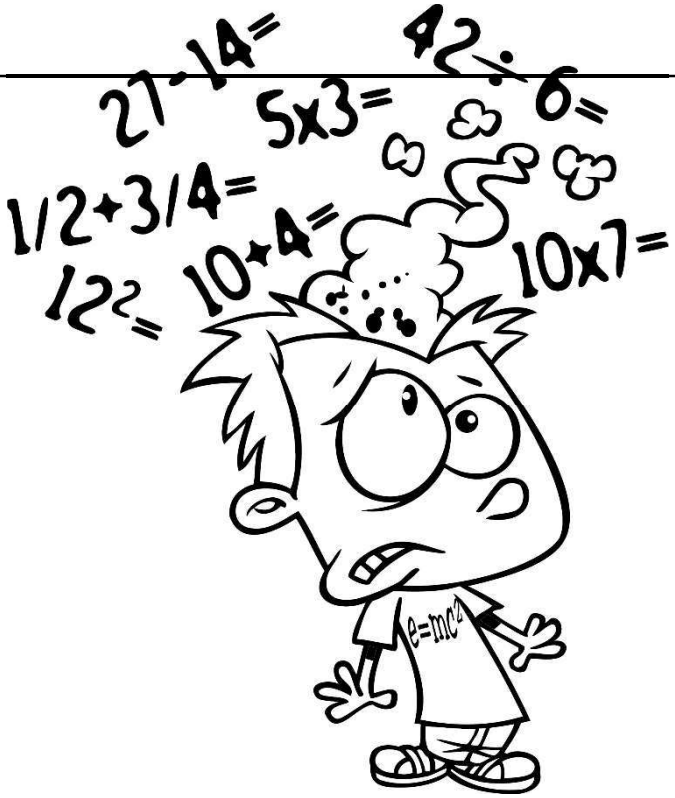
1. List the first several multiples of each number.
2. Find the smallest number that is a multiple of each number.

ex: find the LCM of 6 & 8

6: 6, 12, 18, 24, 30

8: 8, 16, 24, 32, 40

LCM = 24



Find the greatest common factor of each pair or group of numbers.

44. 20 & 15	45. 12 & 18	46. 24 & 30	47. 22 & 28
48. 20 & 40	49. 18 & 27	50. 6, 8, & 12	51. 12, 18, & 24

Find the least common multiple of each pair or group of numbers

52. 8 & 10	53. 9 & 6	54. 8 & 12	55. 7 & 8
56. 9 & 12	57. 10 & 15	58. 6, 9, & 12	59. 4, 6, & 10

Simplifying Fractions

1. Divide the numerator and denominator by a common factor.

2. Repeat until the only common factor of the numerator and denominator is 1.

ex: simplify $\frac{10}{12}$

you can divide both 10 and 12 by 2

$$\frac{10}{12} \begin{matrix} \div 2 \\ = \\ \div 2 \end{matrix} \boxed{\frac{5}{6}}$$

the only number you can divide both 5 and 6 by is 1, so you are done!

Comparing Fractions

1. Find a common denominator for the fractions by finding a common multiple of the two denominators.

2. For each fraction, determine what you multiplied the denominator by to get that common denominator, and then multiply the numerator by that same number.

3. Now that the fractions are rewritten with common denominators, compare the two fractions. The fraction with the larger numerator is greater.

4. Use the appropriate symbol to compare the fractions.
   <: less than, >: greater than, =: equal to

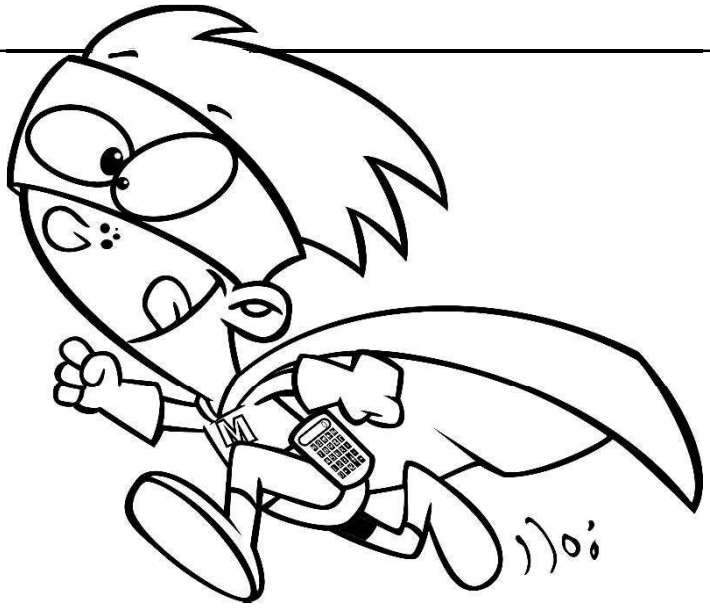
ex: compare: $\frac{3}{4} \bigcirc \frac{5}{6}$

12 is a multiple of both 4 and 6

$$\frac{3}{4} \begin{matrix} \times 3 \\ = \\ \times 3 \end{matrix} \frac{9}{12} \qquad \frac{5}{6} \begin{matrix} \times 2 \\ = \\ \times 2 \end{matrix} \frac{10}{12}$$

$$\frac{9}{12} < \frac{10}{12}$$

9 is smaller than 10, so the 1st fraction is LESS THAN the 2nd fraction



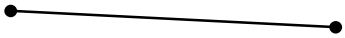
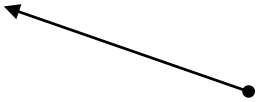
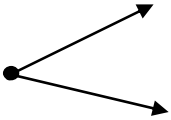
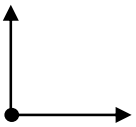
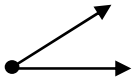
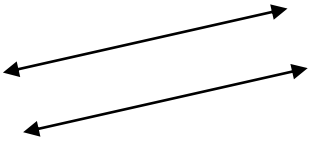
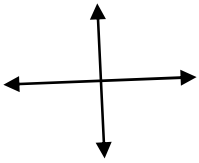
Simplify each fraction.

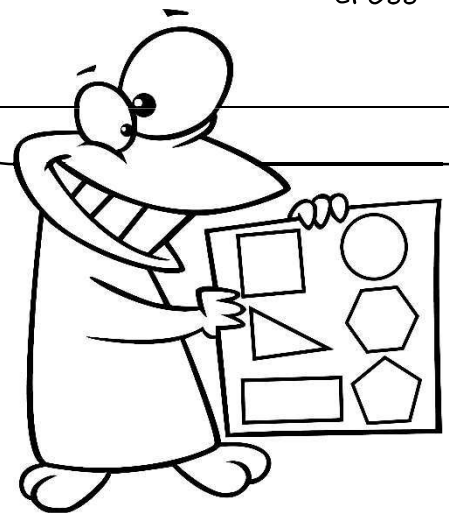
60. $\frac{9}{12}$	61. $\frac{6}{8}$	62. $\frac{6}{15}$	63. $\frac{4}{8}$
64. $\frac{8}{24}$	65. $\frac{3}{12}$	66. $\frac{2}{10}$	67. $\frac{10}{30}$

Compare each pair of fractions using <, >, or = by renaming them with a common denominator.

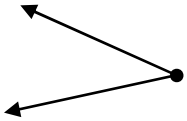
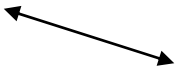
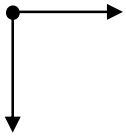
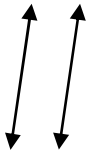
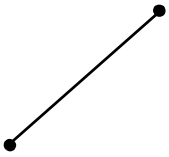
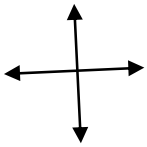
68. $\frac{3}{5} \bigcirc \frac{2}{10}$	69. $\frac{1}{4} \bigcirc \frac{1}{6}$	70. $\frac{3}{5} \bigcirc \frac{7}{10}$
71. $\frac{1}{2} \bigcirc \frac{4}{8}$	72. $\frac{1}{5} \bigcirc \frac{4}{15}$	73. $\frac{2}{9} \bigcirc \frac{1}{3}$
74. $\frac{7}{8} \bigcirc \frac{3}{4}$	75. $\frac{3}{9} \bigcirc \frac{2}{6}$	76. $\frac{1}{2} \bigcirc \frac{1}{3}$

Geometric Figures

Point: a location	
Line: a straight line made up of points that extends forever in both directions	
Line Segment: a part of a line with two endpoints	
Ray: a part of a line with one endpoint that extends forever in one direction	
Angle: two rays with a common endpoint	
Right Angle: an angle with a measure of 90°	
Acute Angle: an angle with a measure less than 90°	
Obtuse Angle: an angle with a measure greater than 90°	
Parallel Lines: lines that never meet and are always the same distance apart	
Perpendicular Lines: lines that form right angles where they cross	



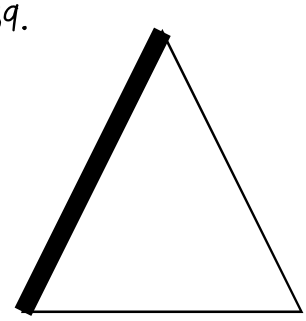
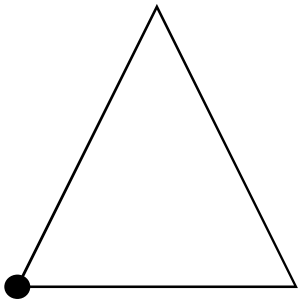
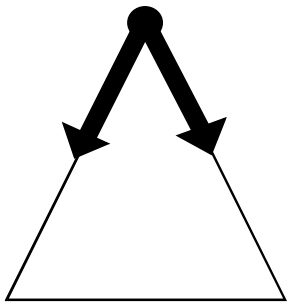
Identify each geometric figure.

77. 	78. 	79. 	80. 
81. 	82. 	83. 	84. 

Draw your own example of each geometric figure.

85. obtuse angle	86. ray	87. acute angle	88. parallel lines

Use a geometry term to identify the bold part of each triangle.

89. 	90. 	91. 

Solve each word problem.

92. Tina left her house at 6:45 AM. She came home at 1:35 PM. How long was she out of the house?	93. Greg made $18 per hour doing yardwork. If he worked for 6 hours, how much money did he make?	94. Mrs. Appleton baked 24 cookies. If she split the cookies evenly among her 5 children, how many cookies did each child get? How many cookies were leftover?
95. If Tyler is currently 51 inches tall, how many inches more does he need to grow to be 5 feet tall?	96. 24 out of the 30 students in Mr. Willow's class ride the bus to school. What fraction of the class does not ride the bus? Express your answer in simplest form.	97. Xavier played video games for 1 hour and 45 minutes before he went to bed. If he went to bed at 9:00 PM, what time did he start playing video games?
98. Hot dogs come in packages of 12. Hot dog buns come in packages of 8. What is the least number of hot dogs & buns you can buy so that you have the same number of each?	99. Joelle makes $9 each hour she babysits. If a new phone costs $112, how many hours must she babysit so that she has enough money to buy the phone?	100. Heather goes to ballet three times a week for 30 minutes each time. She tap dances twice a week for 45 minutes each time. How much time in all does she dance per week?

Name _____ Date _____

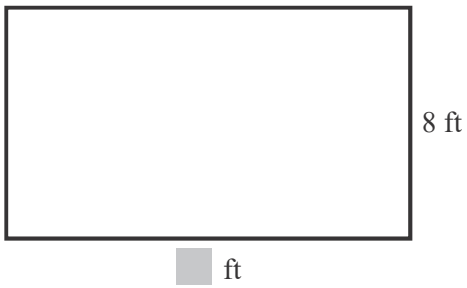
Benchmark Test 4 *(Chapters 1-14)*

Read each question. Fill-in the correct answer.

1. An online music store had an average of 1,462 downloads each hour for 6 hours. How many downloads did the music store have in all?

Ⓐ 8,772 downloads
Ⓑ 8,762 downloads
Ⓒ 8,472 downloads
Ⓓ 6,762 downloads

2. The fabric wall hanging has an **area** of 112 square feet. The width is 8 feet. What is the length?



Ⓕ 14 feet
Ⓖ 28 feet
Ⓗ 30 feet
Ⓘ 48 feet

3. Which is 8,903 written in expanded form?

Ⓐ 800 + 90 + 3
Ⓑ 800 + 90 + 10 + 3
Ⓒ 8,000 + 90 + 3
Ⓓ 8,000 + 900 + 3

4. Pia needs $\frac{3}{4}$ yard of fabric to cover a bench. Which amount of fabric is greater than $\frac{3}{4}$ yard?

Ⓕ $\frac{7}{12}$ yard
Ⓖ $\frac{2}{3}$ yard
Ⓗ $\frac{1}{2}$ yard
Ⓘ $\frac{5}{6}$ yard

5. An amusement park had 8,439 visitors on Friday. It had 9,904 visitors on Saturday. Rounding to the nearest thousand, about how many visitors did the park have altogether?

Ⓐ 16,000 visitors
Ⓑ 17,000 visitors
Ⓒ 18,000 visitors
Ⓓ 20,000 visitors

GO ON ►

Name _____ Date _____

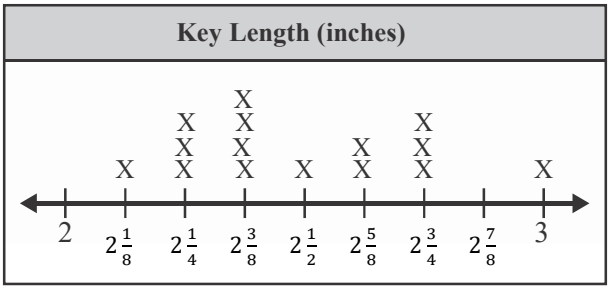
Benchmark Test 4 *(continued)*

6. What is the value of the expression?

$(21 - 3) + (5 \times 2)$

Ⓕ 180
Ⓖ 46
Ⓗ 30
Ⓘ 28

7. Ginna's class measured the lengths of keys. Ginna displayed the data in a line plot.



What is the combined length of the shortest key and the longest key? (Add the lengths – not the x's)

Ⓐ $5\frac{1}{8}$ inches

Ⓑ $\frac{7}{8}$ inch

Ⓒ 5 inches

Ⓓ $1\frac{5}{8}$ inch

8. Choose the fraction in lowest terms for

12/18

A. 2/3

B. 6/9

C. 4/6

D. 1/8

9. What is the place value of the digit 2 in 126,493?

Ⓐ 200
Ⓑ 2,000
Ⓒ 20,000
Ⓓ 200,000

10. Samson Park issued 18,632 hiking permits this year. It issued 18,777 permits last year. How many permits did it issue in all?

Ⓕ 26,309 permits
Ⓖ 37,409 permits
Ⓗ 36,409 permits
Ⓘ 36,309 permits

GO ON ►

Name _____ Date _____

Benchmark Test 4 *(continued)*

11. Choose a fraction that is 6/ 24 in lowest terms.

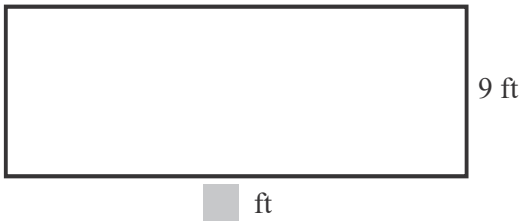
A. 4/6

B. 4/1

C. 1/4

D. 1/24

12. The area of a tablecloth is 108 square feet. The width is 9 feet. What is the **perimeter** of the tablecloth?



Ⓕ 12 feet
Ⓖ 21 feet
Ⓗ 42 feet
Ⓘ 81 feet

13. There are 100 tissues in a box. How many tissues are in 6 boxes?

Ⓐ 60 tissues
Ⓑ 106 tissues
Ⓒ 600 tissues
Ⓓ 6,000 tissues

14. Sara is practicing words for a spelling bee. She practiced 5 words on Monday. She plans to practice 2 times as many words each day as the previous day. How many total words will she practice each day for the next four days?

Ⓕ 10, 15, 20, 25
Ⓖ 10, 20, 30, 40
Ⓗ 10, 20, 40, 60
Ⓘ 10, 20, 40, 80

15. Mrs. Hammond ordered an equal number of T-shirts in 3 different sizes. If she ordered 600 T-shirts, how many of each size did she order?

Ⓐ 20 T-shirts
Ⓑ 200 T-shirts
Ⓒ 1,800 T-shirts
Ⓓ 2,000 T-shirts

GO ON ►

Name _____ Date _____

Benchmark Test 4 *(continued)*

16. Compare fractions.

Choose <, =, >.

3/5 _____ 4/12

A. <

B. =

C. >

17. Choose the least common multiple (LCM) of 2, 3, and 9.

A. 27

B. 18

C. 12

D. 2

18. A store ordered 57 boxes of puzzles for a tent sale. There are 18 puzzles in each box. About how many puzzles did the store order in all?

F 120 puzzles
G 600 puzzles
H 1,000 puzzles
I 1,200 puzzles

19. Davi has 5 times as many hats as Kwan. Davi has 20 hats. Which can be used to find the number of hats Kwan has?

A $5 + h = 20$; $h = 15$
B $5 \times h = 20$; $h = 4$
C $5 \times 20 = h$; $h = 100$
D $5 + 20 = h$; $h = 25$

20. Mr. Tate equally divided 64 screws into 4 drawers of a tool chest. How many screws are in each drawer?

F 13 screws
G 14 screws
H 16 screws
I 18 screws

GO ON ►

Name _____ Date _____

Benchmark Test 4 *(continued)*

21. Pet Care gave 560,423 bowls of food to animal shelters this year. This was 214,975 more bowls than the previous year. How many total bowls of food did Pet Care give to animal shelters?

Ⓐ 345,448 bowls
Ⓑ 775,398 bowls
Ⓒ 805,861 bowls
Ⓓ 905,871 bowls

22. In a survey on the heaviest zoo animal, $\frac{2}{8}$ of Caesar's class voted for rhinoceros and $\frac{5}{8}$ voted for elephant. What fraction of the class voted for either a rhinoceros or an elephant as the heaviest animal? (ie. How many votes in all?)

Ⓕ $\frac{1}{8}$
Ⓖ $\frac{3}{8}$
Ⓗ $\frac{7}{16}$
Ⓘ $\frac{7}{8}$

23. Which rule describes the pattern?

45, 47, 46, 48, 47, 49, 48

Ⓐ add 2
Ⓑ subtract 1
Ⓒ add 2, then subtract 1
Ⓓ subtract 1, then add 2

24. For the improper fraction below, choose the equivalent mixed number in simplest form.

92/8

A. 11 1/8

B. 11 7/8

C. 11 4/8

D. 11 1/2

Divide.

1845 ÷ 9

A. 250

B. 205

C. 2500

Name _____ Date _____

Benchmark Test 4 *(continued)*

26. **Find the value of the expression:**

14 – 3 x 4

A. 2

B. 26

C. 40

D. 44

27. **Estimate the product.**

42 x 38 =

A. 1500

B. 1600

C. 1200

28. **Find the value of y, when x = 4**

(x + 4) x 5 = y

A. 4

B. 35

C. 24

D. 40

29. **Estimate the quotient. Use compatible numbers.**

$3,511 ÷ 6

A. 400

B. 60

C. 600

30. It takes Mars 687 days to orbit the Sun. How long does it take Mars to orbit the Sun 9 times?

Ⓕ 5,423 days
Ⓖ 5,983 days
Ⓗ 6,073 days
Ⓘ 6,183 days

GO ON ►

Name _____ Date _____

Benchmark Test 4 *(continued)*

31. Using Order of Operations (PEMDAS) solve the expression.

$$(4 + 20) \div 2 + 6$$

A. 4

B. 3

C. 18

D. 10

32. Find the sum in simplest form.

$$4\ 1/4 + 2\ 2/4$$

A. 6 1/2

B. 8 3/4

C. 6 3/4

D. 6 1/4

33. Divide.

$$826 \div 4$$

A. 260 R2

B. 206 R2

C. 106 R2

D. 205 R4

34. Lexi sent an average of 17 text messages each day for 68 days. How many text messages did Lexi send altogether?

Ⓕ 746 text messages
Ⓖ 1,106 text messages
Ⓗ 1,146 text messages
Ⓘ 1,156 text messages

35. Which statement is true?

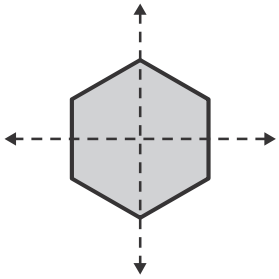
Ⓐ 143,670 > 143,681
Ⓑ 246,029 < 245,984
Ⓒ 304,789 > 304,799
Ⓓ 479,199 < 479,201

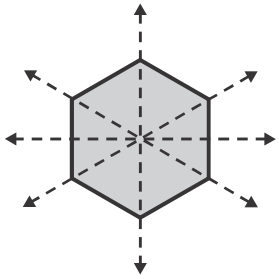
GO ON ►

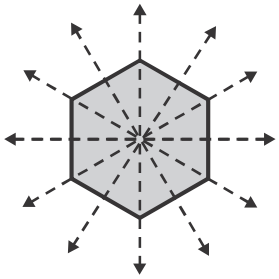
Name _____ Date _____

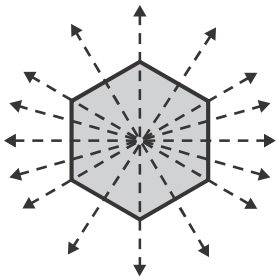
Benchmark Test 4 *(continued)*

36. Which shows all of the lines of symmetry for a hexagon?

Ⓕ 

Ⓖ 

Ⓗ 

Ⓘ 

37. Jade learned the meaning of 3 new words each week for 41 weeks. How many new words did Jade learn altogether?

Ⓐ 132 words
Ⓑ 123 words
Ⓒ 44 words
Ⓓ 38 words

38. A school office is dividing 336 boxes of chalk equally among 8 classrooms. How many boxes of chalk will each classroom get?

Ⓕ 40 boxes
Ⓖ 42 boxes
Ⓗ 43 boxes
Ⓘ 45 boxes

39. Find the sum in simplest form.

$$12\ 5/10 + 6\ 1/10$$

A. 18 6/10

B. 6 6/10

C. 18 3/5

D. 18 1/10

40. A surf shop earned $46,998 its first year. The shop earned $59,643 the second year. How much more did the shop earn the second year?

Ⓕ $12,645
Ⓖ $12,755
Ⓗ $13,655
Ⓘ $13,765

GO ON ►

Name _____ Date _____

Benchmark Test 4 *(continued)*

41. Makalu is listed as the fifth tallest mountain in the world. It is 27,838 feet high. What is this number written in word form?

Ⓐ twenty-seven, eight hundred, thirty-eight
Ⓑ twenty-seven, eight thirty-eight
Ⓒ twenty-seven thousand, eighty-three hundred, eight
Ⓓ twenty-seven thousand, eight hundred, thirty-eight

42. The equation shown in the table can be used to find the output when the input is 2, 4, and 6.

$6 + (8 - x) \div 2 = y$	
Input (x)	**Output (y)**
2	
4	
6	

Which numbers complete the table?

Ⓕ 6, 5, 4
Ⓖ 8, 9, 10
Ⓗ 9, 8, 7
Ⓘ 14, 12, 10

43. Find the difference.

6 1/4 - 4 2/4

A. 2 1/4

B. 2 3/4

C. 1 3/4

D. 1 1/4

44. At a botanical garden, there are 1,414 rose bushes divided equally into 7 different rose gardens. How many rose bushes are in each garden?

Ⓕ 22 rose bushes
Ⓖ 202 rose bushes
Ⓗ 220 rose bushes
Ⓘ 222 rose bushes