

Summer Math Reinforcement Packet Students Entering into 5th Grade

Our fourth graders had a busy year learning new math skills. **Mastery of all these skills is extremely important in order to develop a solid math foundation.** The fifth grade math program will **add onto these fourth grade skills**, so any time spent learning or reinforcing these concepts will be very beneficial for your child. Each year builds upon the previous year's skills in math. Any areas your child has difficulty, you may want to give them additional practice.

Student mastery of the basic math skills is as important to success in future mathematical procedures and reasoning as learning the alphabet is to reading and writing.

Have your child complete one page (one side), three times a week of the math packet. Please return this completed packet to your fifth grade teacher.

After your child has completed the math problems and you feel your child is still struggling on a certain concept and needs further practice, you can visit some of the web sites listed on the next page. You can also make up problems of your own for additional practice.

Also **included is an answer key** on different color paper **for parents use only** in assisting your child.

Enjoy your summer!!

Reminder - Practicing multiplication (up to 12) and division facts are **VERY important!**

FOURTH GRADE**GRADE LEVEL EXPECTATIONS IN MATHEMATICS**

When entering fifth grade this is what is expected that your child should already know.

1. Read and write numbers to 1,000,000.
2. Know place value to 1,000,000. Ex. 25,068 is 2 ten thousand, 5 thousand, 0 hundreds, 6 tens and 8 ones.
3. List the first twelve multiples of a given one-digit whole number.
4. Know some numbers are called prime numbers. Some prime numbers are 2, 3, 5, 7 and 11; have exactly two factors one and itself.
5. Add, subtract and multiply whole numbers **fluently**.
6. Divide numbers up to four-digits by one-digit numbers and by 10.
7. Use the relationship between multiplication and division to check results and to find the value of the unknowns in equations such as $x \div 10 = 25$, $10 \times 25 = 250$ so $x = 250$; $125 \div z = 25$, $125 \div 25 = 5$ so $z = 5$.
8. Locate the decimals in tenths and hundredths on a number line.
9. Read, write, interpret, and compare decimals up to two decimal places (hundredths).
10. Convert decimals in tenths and hundredths to fraction and decimal forms.
11. Write improper fractions as mixed numbers and mixed numbers as improper fractions.
12. Compare and order up to three fractions with denominators 2, 4, and 8; and 3, 6, and 12.
13. Add and subtract fractions.
14. Find the value of an unknown in equations such as $1/8 + x = 5/8$ or $3/4 - y = 1/2$.
15. Add and subtract decimals up to 2 decimal places.
16. Multiply and divide decimals up to 2 decimal places by a one-digit whole number.
17. Measure area and perimeter for compound shapes (complex figures).
18. Calculate conversions from one unit to a larger or smaller unit of measure: meters to centimeters, kilograms to grams, liters to milliliters, hours to minutes, minutes to seconds, years to months, weeks to days, feet to inches, ounces to pounds.
19. Identify and draw perpendicular, parallel and intersecting lines.
20. Find the side of a square or rectangle given its perimeter or area and possibly one side.
21. Identify basic geometric shapes including isosceles, equilateral and right triangles.
22. Identify and count faces, edges, and vertices of basic three-dimensional solids including cubes, rectangular prisms and pyramids.
23. Recognize plane figures that have line symmetry. (Where you can divide a shape in half and both halves are exactly the same).
24. Construct tables and bar graphs from given data.
25. Find the median and range of a set of data.

Excellent websites for fun learning and reinforcement of math skills:

www.wildmath.com Select “Play the game”. Select addition, subtraction or multiplication and grade. You can race to beat your time.

www.harcourtschool.com Click the red box, select math, select HSPMath, select Michigan, click on the “4” ball or “5” ball for a challenge. Select a game.

www.aplusmath.com Go under “Flashcards” or “Game Room” on the left side of the screen. They can practice adding, subtracting and multiplying. Very important to know the addition, subtraction and multiplication facts from memorization or within a couple seconds.

www.mathisfun.com Select numbers then Math Trainer for adding, subtracting and multiplication. Or at the home screen select games and pick a game to play.

www.eduplace.com Select your state – “Michigan” press submit. Select the student tab then click on the “mathematics” rectangle. Click in the center book “Houghton Mifflin Math 2007”, Click on “Grade 4”. Select any games. Extra Help and Extra Practice is good, also eGames.

www.illuminations.nctm.org Select activities then select grade level. Click on Search.

www.aaamath.com At the top pick “Fourth” or “Fifth” for a challenge. Choose any of the activities like multiplication then select “play” option toward the top of the screen. 20 Questions and Countdown games are good ones.

www.funbrain.com Lots of fun games to choose from.

Other games and activities you can play:

- Take a deck of cards and remove the face cards (kings, queens, jacks). Aces are one. Divide the cards evenly among 2 players. Each player flips over a card. The first one to add the 2 numbers correctly the fastest wins the cards. After going through the pile of cards, the player with the most cards wins. You can do a multiplication version also.

TERMS

Edges: This is all the straight lines of a figure. Like the edge of a desk.

Faces: This is the flat surface of a figure.

Vertex: This is all the corners of a figure.

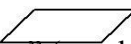
Right angle: An angle at 90° like a corner of a piece of paper.

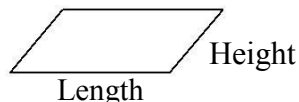
Acute angle: An angle smaller than a right angle.

Obtuse angle: An angle larger than a right angle.

Perimeter: You add up all the sides. (You are adding all lengths of the outer edges together.) **Area:**


*Area of a square or rectangle = length(l) x width(w) answer is written in "square inches"
(or whatever the measurement is).

*Area of a parallelogram  is length x height. Answer written in "square inches" (or whatever measurement)



*Area of a triangle is $\frac{1}{2}$ base x height. Answer written in "square inches"
(or whatever measurement).

Perpendicular lines:  2 lines form a right angle.

Parallel lines:  2 lines that will never cross each other.

Intersecting lines:  2 lines that cross each other but do not form a right angle.

Mean: This is average. You add the set of number values and divide it by how many numbers you have.

Median: Arrange numbers from smallest to largest. What number is in the middle? That is the Median number.

Mode: What number occurs most often? This number is the mode.

Range: Subtract the largest number in the group from the smallest number in the group. This number is the range.

Equilateral triangle is where all 3 sides of the triangle measure the same length.

Isosceles triangle is where only 2 of the sides of a triangle are equal in length.

Conversion:

60 seconds = 1 minute

24 hours = 1 day

52 weeks = 1 year

60 minutes = 1 hour

7 days = 1 week

12 months = 1 year

12 inches = 1 foot

10 millimeter = 1 centimeter (approx. 3 $\frac{1}{2}$ centimeters = 1 inch)

3 feet = 1 yard

100 centimeter = 1 meter (approx. 1 meter = 1 yard)

Entering 5th Grade Summer Math Packet**First Name:** _____ **Last Name:** _____**5th Grade Teacher:** _____**I have checked the work completed:** _____
Parent SignatureSelect the one best answer for each question. **DO NOT** use a calculator in completing this packet.1. Which of the following sets of numbers are **all** of the factors of 24?

- A. 1, 3, 8, 24
- B. 2, 4, 6, 8, 12, 24
- C. 2, 3, 4, 6, 8, 12
- D. 1, 2, 3, 4, 6, 8, 12, 24

2. Which of the following numbers is a multiple of 8?

- A. 18
- B. 28
- C. 44
- D. 56

3. The following are all multiples of a one-digit number: 12, 24, 30, 42.

- A. 5
- B. 6
- C. 7
- D. 8

4. Which number is a multiple of 3?

- A. 83
- B. 84
- C. 85
- D. 86

5. Which of the following set of numbers are all multiples of 7?

- A. 35, 47, 52
- B. 35, 36, 37
- C. 35, 42, 49
- D. 37, 47, 57

6. Al sees this sign at a copy center. What is the least number of copies Al can make without losing any money?

1. Copies cost 10¢ each.
2. Copy machines only take quarters.
3. Copy machines do NOT make change.
If you make 1 copy, you will NOT get 15¢ back.

- A. 5
B. 30
C. 75
D. 150
7. Which of the following is NOT true about prime numbers?
- A. They have exactly two factors
B. One is a factor of every prime number
C. No prime numbers end in zero
D. All prime numbers are odd numbers
8. Which set does NOT contain any multiples of 4?
- A. {24, 36, 42, 54}
B. {12, 15, 20, 24}
C. {8, 16, 24, 34}
D. {6, 10, 14, 18}
9. I am a factor of 36 and a multiple of 3. What number am I?
- A. 2
B. 4
C. 12
D. 15
10. Since $4 \times 10 = 40$, and $40 \times 5 = 200$, then which of the following is true?
- A. $14 \times 45 = 200$
B. $4 \times 10 \times 5 = 200$
C. $4 \times 10 \times 40 = 200$
D. $40 \times 10 \times 5 = 200$
11. My number is a multiple of 5. It is less than 100 and has a factor of 6. What is my number?
- A. 25 C. 60
B. 36 D. 66

12. Write the products: Practice any you do not know quickly.

$$\begin{array}{r} 4 \\ \underline{\times 2} \end{array} \quad \begin{array}{r} 8 \\ \underline{\times 4} \end{array} \quad \begin{array}{r} 11 \\ \underline{\times 2} \end{array} \quad \begin{array}{r} 2 \\ \underline{\times 5} \end{array} \quad \begin{array}{r} 2 \\ \underline{\times 3} \end{array} \quad \begin{array}{r} 7 \\ \underline{\times 5} \end{array} \quad \begin{array}{r} 10 \\ \underline{\times 3} \end{array} \quad \begin{array}{r} 12 \\ \underline{\times 4} \end{array} \quad \begin{array}{r} 6 \\ \underline{\times 3} \end{array} \quad \begin{array}{r} 5 \\ \underline{\times 4} \end{array} \quad \begin{array}{r} 9 \\ \underline{\times 4} \end{array} \quad \begin{array}{r} 5 \\ \underline{\times 3} \end{array} \quad \begin{array}{r} 0 \\ \underline{\times 2} \end{array}$$

$$\begin{array}{r} 3 \\ \underline{\times 3} \end{array} \quad \begin{array}{r} 9 \\ \underline{\times 5} \end{array} \quad \begin{array}{r} 2 \\ \underline{\times 7} \end{array} \quad \begin{array}{r} 5 \\ \underline{\times 5} \end{array} \quad \begin{array}{r} 7 \\ \underline{\times 4} \end{array} \quad \begin{array}{r} 10 \\ \underline{\times 4} \end{array} \quad \begin{array}{r} 6 \\ \underline{\times 4} \end{array} \quad \begin{array}{r} 5 \\ \underline{\times 2} \end{array} \quad \begin{array}{r} 11 \\ \underline{\times 5} \end{array} \quad \begin{array}{r} 1 \\ \underline{\times 3} \end{array} \quad \begin{array}{r} 4 \\ \underline{\times 5} \end{array} \quad \begin{array}{r} 8 \\ \underline{\times 2} \end{array} \quad \begin{array}{r} 11 \\ \underline{\times 4} \end{array}$$

$$\begin{array}{r} 6 \\ \underline{\times 5} \end{array} \quad \begin{array}{r} 8 \\ \underline{\times 4} \end{array} \quad \begin{array}{r} 6 \\ \underline{\times 2} \end{array} \quad \begin{array}{r} 3 \\ \underline{\times 4} \end{array} \quad \begin{array}{r} 9 \\ \underline{\times 3} \end{array} \quad \begin{array}{r} 10 \\ \underline{\times 2} \end{array} \quad \begin{array}{r} 12 \\ \underline{\times 3} \end{array} \quad \begin{array}{r} 3 \\ \underline{\times 5} \end{array} \quad \begin{array}{r} 7 \\ \underline{\times 3} \end{array} \quad \begin{array}{r} 4 \\ \underline{\times 4} \end{array} \quad \begin{array}{r} 9 \\ \underline{\times 2} \end{array} \quad \begin{array}{r} 4 \\ \underline{\times 3} \end{array} \quad \begin{array}{r} 12 \\ \underline{\times 2} \end{array}$$

$$\begin{array}{r} 9 \\ \underline{\times 8} \end{array} \quad \begin{array}{r} 7 \\ \underline{\times 6} \end{array} \quad \begin{array}{r} 5 \\ \underline{\times 10} \end{array} \quad \begin{array}{r} 2 \\ \underline{\times 7} \end{array} \quad \begin{array}{r} 6 \\ \underline{\times 9} \end{array} \quad \begin{array}{r} 7 \\ \underline{\times 7} \end{array} \quad \begin{array}{r} 3 \\ \underline{\times 8} \end{array} \quad \begin{array}{r} 4 \\ \underline{\times 6} \end{array} \quad \begin{array}{r} 5 \\ \underline{\times 9} \end{array} \quad \begin{array}{r} 8 \\ \underline{\times 7} \end{array} \quad \begin{array}{r} 3 \\ \underline{\times 9} \end{array} \quad \begin{array}{r} 11 \\ \underline{\times 7} \end{array} \quad \begin{array}{r} 5 \\ \underline{\times 7} \end{array}$$

$$\begin{array}{r} 9 \\ \underline{\times 6} \end{array} \quad \begin{array}{r} 2 \\ \underline{\times 9} \end{array} \quad \begin{array}{r} 6 \\ \underline{\times 7} \end{array} \quad \begin{array}{r} 4 \\ \underline{\times 11} \end{array} \quad \begin{array}{r} 5 \\ \underline{\times 6} \end{array} \quad \begin{array}{r} 6 \\ \underline{\times 8} \end{array} \quad \begin{array}{r} 4 \\ \underline{\times 9} \end{array} \quad \begin{array}{r} 8 \\ \underline{\times 8} \end{array} \quad \begin{array}{r} 10 \\ \underline{\times 8} \end{array} \quad \begin{array}{r} 3 \\ \underline{\times 6} \end{array} \quad \begin{array}{r} 7 \\ \underline{\times 8} \end{array} \quad \begin{array}{r} 4 \\ \underline{\times 7} \end{array} \quad \begin{array}{r} 7 \\ \underline{\times 9} \end{array}$$

$$\begin{array}{r} 2 \\ \underline{\times 6} \end{array} \quad \begin{array}{r} 3 \\ \underline{\times 12} \end{array} \quad \begin{array}{r} 9 \\ \underline{\times 9} \end{array} \quad \begin{array}{r} 8 \\ \underline{\times 6} \end{array} \quad \begin{array}{r} 2 \\ \underline{\times 8} \end{array} \quad \begin{array}{r} 3 \\ \underline{\times 6} \end{array} \quad \begin{array}{r} 9 \\ \underline{\times 7} \end{array} \quad \begin{array}{r} 7 \\ \underline{\times 8} \end{array} \quad \begin{array}{r} 0 \\ \underline{\times 9} \end{array} \quad \begin{array}{r} 2 \\ \underline{\times 12} \end{array} \quad \begin{array}{r} 5 \\ \underline{\times 8} \end{array} \quad \begin{array}{r} 4 \\ \underline{\times 9} \end{array} \quad \begin{array}{r} 6 \\ \underline{\times 6} \end{array}$$

13. Since $5 \times 20 = 100$, which number will complete the number sentence below to make it true? $5 \times \underline{\hspace{1cm}} \times 5 = 100$

- A. 4
- B. 5
- C. 20
- D. 25

14. Solve $136 - 67$.

- A. 61
- B. 69
- C. 71
- D. 79

15. Solve $206 - 48$.

- A. 158
- B. 242
- C. 162
- D. 262

16. Which expression is equal to 3×49 ?

- A. $3 \times (4 + 9)$
- B. $3 + (40 \times 9)$
- C. $3 \times (40 + 9)$
- D. $(3 \times 4) + (3 \times 9)$

17. Which has the same value as 57×4 ?

- A. $(50 \times 4) + (7 \times 4)$
- B. $(50 + 5) + 2$
- C. $(50 \times 5) + 2$
- D. $(50 \times 4) + 7$

18. Which expression is equal to 83×5 ?

- A. $80 \times (3 + 5)$
- B. $(80 \times 5) + (3 \times 5)$
- C. $(5 \times 80) + 3$
- D. $(80 \times 5) + ((80 \times 3))$

19. Solve the following:

$$\begin{array}{r} 2,749 \\ \times 68 \\ \hline \end{array}$$

$$\begin{array}{r} 156 \\ \times 78 \\ \hline \end{array}$$

$$\begin{array}{r} 837 \\ \times 46 \\ \hline \end{array}$$

$$\begin{array}{r} 368 \\ \times 20 \\ \hline \end{array}$$

20. What is 1486 divided by 3? Show your work.

- A. 4,812 r0
- B. 495 r1
- C. 280 r10
- D. 496 r0

21. What is 2520 divide by 10? Show your work.

- A. 25,200
- B. 2,520
- C. 253
- D. 252

22. What is the value of this expression? $420 \div 4$
- A. 15
 - B. 100
 - C. 105
 - D. 150
23. There are 168 lunches to be shared equally among 3 fourth-grade classes. How many lunches will go to each class?
- A. 56
 - B. 165
 - C. 171
 - D. 504
24. What is the value of this expression? $3750 \div 10$
- A. 370
 - B. 375
 - C. 3740
 - D. 37500
25. Which division problem is correct? Show your work.
- A. $4,836 \div 6 = 86$
 - B. $4,836 \div 6 = 806$
 - C. $3,215 \div 5 = 641$
 - D. $3,215 \div 5 = 603$
26. If $600 \div A = 300$, what is A?
- A. 200
 - B. 30
 - C. 20
 - D. 2
27. Fill in the blank with the number that makes this math sentence correct:
- $12 \times \underline{\quad} = 60$
- A. 7
 - B. 4
 - C. 6
 - D. 5

28. What value of A makes the number sentence true?

$$100 \div A = 20$$

- A. 4
- B. 5
- C. 80
- D. 120

29. What value of n makes the equation below true? $n \div 7 = 21$

- A. 3
- B. 28
- C. 141
- D. 147

30. Which value of g makes the number sentence true? $g \div 8 = 32$

- A. 4
- B. 24
- C. 40
- D. 256

31. What value of p makes the equation below true? $270 \div p = 27$


- A. 7
- B. 8
- C. 9
- D. 10

32. Which math problem can be checked using $3 \times 6 = 18$?

- A. $18 \times 3 = \underline{\hspace{2cm}}$
- B. $18 + 3 = \underline{\hspace{2cm}}$
- C. $18 \div 3 = \underline{\hspace{2cm}}$
- D. $18 - 3 = \underline{\hspace{2cm}}$

33. The students in your class collected pop cans to raise money for a class trip. The goal for each student was to collect 150 cans each. There are 27 students in your class. How many cans would that be altogether?

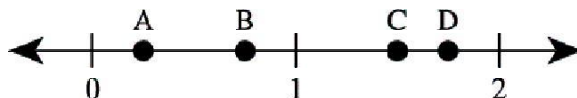
- A. 177 cans
- B. 405 cans
- C. 1350 cans
- D. 4050 cans

34. Suppose 33 photos are placed in a photo album. How many pages are needed if 3 photos fit on a page? Show your work.
- A. 9 pages
 - B. 10 pages
 - C. 11 pages
 - D. 12 pages
35. Which answer means the same as \$12.49?
- A. One and two forty nines
 - B. Twelve and forty nine
 - C. Twelve and forty nine tens
 - D. Twelve and forty nine hundredths
36. Mr. Clark was given some change at the grocery store. He was given 5 one dollar bills, 6 quarters, 2 dimes and a penny. How much change did he get?
- A. \$5.62
 - B. \$6.71
 - C. \$56.21
 - D. \$6.21
37. What decimal part of one dollar is the sum of these coins?
- 
- A. 2.00
 - B. 0.20
 - C. 0.02
 - D. 0.22
38. What is another way to write 0.7 inches?
- A. $\frac{7}{10000}$ inches
 - B. $\frac{7}{1000}$ inches
 - C. $\frac{7}{100}$ inches
 - D. $\frac{7}{10}$ inches
39. Which is equal to 0.45?
- A. $\frac{4}{5}$
 - B. $\frac{45}{100}$
 - C. $\frac{100}{45}$
 - D. $\frac{5}{100}$

40. Which number is the same as one fourth?
(think of $\frac{1}{4}$ of 100 when converting to decimals; think of money)

A. 0.4
B. 0.04
C. 0.25
D. 0.75

41. Which point on the number line below *best* represents 1.75?



A. Point A
B. Point B
C. Point C
D. Point D

42. Match the following: Draw a line to make a match.

Four tenths	.08
Eight hundredths	.3
64 hundredths	.4
3 tenths	.64

43. Divide $3,252 \div 7$

A. 463 R11
B. 464
C. 464 R4

44. Write the following in fraction and decimal form:

Eight tenths = _____ = _____

Twenty-seven hundredths = _____ = _____

Five hundredths = _____ = _____

Five tenths = _____ = _____

45. Write the following fractions in decimal form. Remember:

• tenths hundredths

$4/10 =$ _____ $8/10 =$ _____ $23/100 =$ _____ $56/100 =$ _____

$8/100 =$ _____ $5/10 =$ _____ $66/100 =$ _____ $2/10 =$ _____

46. Which number is the same as .5?

- A. One half
- B. 5/1
- C. Five hundredths
- D. 5/1000

47. How is eighteen hundredths written in standard form?

- A. 0.018
- B. 0.18
- C. 18.00
- D. 1800

48. Solve each of these without using a calculator:

$4 \times 6 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$6 \times 6 = \underline{\quad}$

$2 \times 9 = \underline{\quad}$

$5 \times 5 = \underline{\quad}$

$9 \times 6 = \underline{\quad}$

$8 \times 5 = \underline{\quad}$

$2 \times 2 = \underline{\quad}$

$3 \times 4 = \underline{\quad}$

$32 \div 4 = \underline{\quad}$

$7 \times 7 = \underline{\quad}$

$56 \div 7 = \underline{\quad}$

$72 \div 9 = \underline{\quad}$

$18 \div 2 = \underline{\quad}$

$3 \times 8 = \underline{\quad}$

$45 \div 9 = \underline{\quad}$

$4 \times 4 = \underline{\quad}$

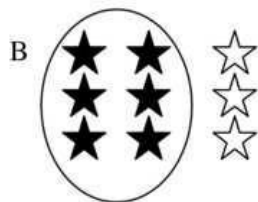
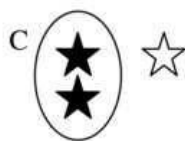
$8 \times 7 = \underline{\quad}$

$24 \div 3 = \underline{\quad}$

$3 \times 3 = \underline{\quad}$

$3 \times 8 = \underline{\quad}$

49. Choose the circled group that represents $\frac{1}{3}$.



- A. A
- B. B
- C. C
- D. D

50. There are 4 red cars, 5 blue cars, and 2 green cars in the parking lot. What is the fraction of Blue cars in the parking lot?

A. $\frac{5}{4}$

B. $\frac{5}{9}$

C. $\frac{5}{11}$

D. $\frac{11}{5}$

51. What is the fraction for the shaded part of this set?



A. $\frac{3}{8}$

B. $\frac{3}{4}$

C. $\frac{3}{7}$

52. Look at this set of objects. Which fraction stands for the part of the set that is shaded?



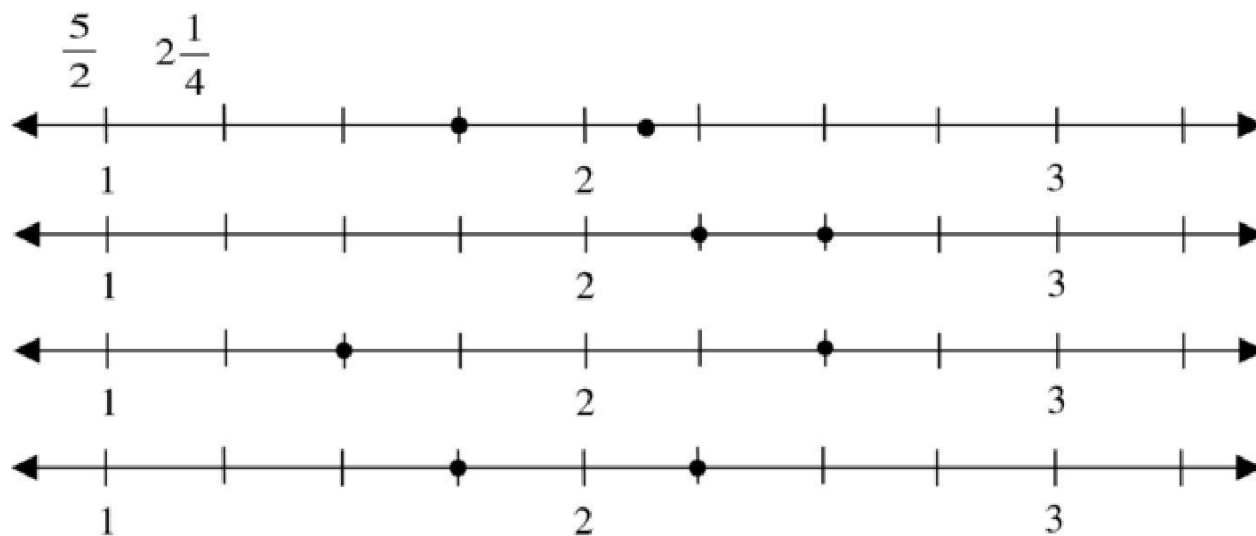
A. $\frac{3}{5}$

B. $\frac{5}{3}$

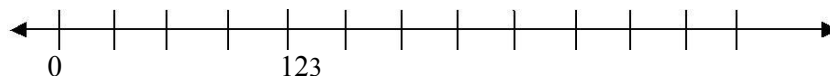
C. $\frac{5}{8}$

D. $\frac{3}{8}$

53. Which number line shows these two fractions?



54. Which of the following best represents the location of the X on the number line below?
X



- A. $1\frac{1}{4}$
- B. $1\frac{1}{2}$
- C. $1\frac{3}{4}$
- D. $2\frac{1}{4}$

55. How many twelfths equal $\frac{5}{6}$?

- A. $\frac{10}{12}$
- B. $\frac{11}{12}$
- C. $\frac{6}{12}$
- D. $\frac{5}{12}$

56. How many eighths equal $\frac{1}{4}$?

- A. $\frac{1}{8}$
- B. $\frac{2}{8}$
- C. $\frac{4}{8}$
- D. $\frac{7}{8}$

57. Which number is an improper fraction?

- A. $\frac{11}{12}$
- B. $\frac{5}{8}$
- C. $\frac{8}{5}$
- D. $\frac{6}{7}$

58. Convert this improper fraction into a mixed number. $11/2$

- A. $11 \frac{1}{2}$
- B. $2/11$
- C. $4 \frac{1}{2}$
- D. $5 \frac{1}{2}$

59. Which of the following is listed from smallest to largest? Draw pictures

- A. $\frac{11}{4}, \frac{15}{6}, 2\frac{7}{12}$
- B. $\frac{15}{6}, \frac{8}{3}, 2\frac{7}{12}$
- C. $\frac{15}{6}, 2\frac{7}{12}, \frac{8}{3}$
- D. $\frac{8}{3}, 2\frac{7}{12}, \frac{11}{4}$

60. Solve the following:

$$1 \times 9 = \underline{\quad\quad} \quad 3 \times 6 = \underline{\quad\quad\quad} \quad 9 \times 7 = \underline{\quad\quad\quad} \quad 6 \times 2 = \underline{\quad\quad\quad}$$

$$8 \times 6 = \underline{\quad\quad\quad} \quad 2 \times 2 = \underline{\quad\quad\quad} \quad 3 \times 8 = \underline{\quad\quad\quad} \quad 9 \times 9 = \underline{\quad\quad\quad}$$

$$24 \div 3 = \underline{\quad\quad\quad} \quad 7 \times 7 = \underline{\quad\quad\quad} \quad 56 \div 7 = \underline{\quad\quad\quad} \quad 4 \times 0 = \underline{\quad\quad\quad}$$

$$48 \div 6 = \underline{\quad\quad\quad} \quad 18 \div 6 = \underline{\quad\quad\quad} \quad 7 \times 3 = \underline{\quad\quad\quad} \quad 7 \times 7 = \underline{\quad\quad\quad}$$

61. Which of the following is a prime number?

- A. 21
- B. 33
- C. 49
- D. 53

62. Choose the equation that is NOT true.

A. $\frac{1}{2} + \frac{3}{8} = \frac{7}{8}$

B. $\frac{1}{6} + \frac{5}{12} = \frac{7}{12}$

C. $\frac{3}{10} - \frac{23}{100} = \frac{7}{100}$

D. $\frac{8}{10} - \frac{3}{5} = \frac{2}{5}$

63. The distance from home to school is $\frac{7}{8}$ of a mile for Amy and $\frac{4}{8}$ of a mile from Tom. How much farther does Amy walk than Tom?
- A. $\frac{11}{8}$
 - B. $\frac{11}{16}$
 - C. $\frac{3}{16}$
 - D. $\frac{3}{8}$
64. Sonya needs $\frac{1}{2}$ teaspoon of salt for her recipe to make rolls. She needs $\frac{1}{4}$ teaspoon of salt for her recipe to make biscuits. How much salt will she need to make both recipes?
- A. $\frac{2}{6}$ tsp.
 - B. $\frac{3}{4}$ tsp.
 - C. $\frac{1}{8}$ tsp.
 - D. $\frac{1}{6}$ tsp.
65. Solve for the unknown in this equation: $\frac{2}{4} + n = \frac{3}{4}$ $n =$ _____
- A. $\frac{5}{4}$
 - B. $\frac{1}{2}$
 - C. $\frac{1}{4}$
 - D. $\frac{5}{8}$
66. How much is $1.35 \div 5$? Do not use a calculator!
- A. .27
 - B. .35
 - C. .5
 - D. 1.7
67. How much is $1.14 \div 2$? Do not use a calculator. (Line up and move decimal straight up into answer)
- A. .7
 - B. .52
 - C. .57
 - D. 1.7
68. Which of the following is closest to the sum of 811 and 356? No calculator ☹.
- A. 1400
 - B. 1300
 - C. 1200
 - D. 1100
69. Which of the following is closest to the product of 81 and 82? Do not use a calculator.
- A. 6400
 - B. 7200
 - C. 720
 - D. 64,000

70. One hundred fourth graders at Beacon Tree Elementary are attending a field day. The teachers need to know how many hot dogs to buy. All the following are reasonable approximations EXCEPT.

- A. 100 hot dogs
- B. 150 hot dogs
- C. 200 hot dogs
- D. 50 hot dogs

71. A cat sleeps an average of 17 hours each day. About how many hours does a cat sleep in a month?

- A. 300 hours
- B. 600 hours
- C. 170 hours
- D. 6000 hours

72. Find the difference: Remember “bottom bigger better borrow” and you can only borrow from next door. You can always check your answers by adding your answer and the second number and this should equal your top number.

$$\begin{array}{r} 701 \\ -35 \\ \hline \end{array}$$

$$\begin{array}{r} 68 \\ -27 \\ \hline \end{array}$$

$$\begin{array}{r} 100 \\ -37 \\ \hline \end{array}$$

$$\begin{array}{r} 63 \\ -47 \\ \hline \end{array}$$

$$\begin{array}{r} 35 \\ -15 \\ \hline \end{array}$$

$$\begin{array}{r} 114 \\ -37 \\ \hline \end{array}$$

$$\begin{array}{r} 66 \\ -24 \\ \hline \end{array}$$

73. Find the product:

$$\begin{array}{r} 36 \\ \times 47 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ \times 68 \\ \hline \end{array}$$

$$\begin{array}{r} 59 \\ \times 39 \\ \hline \end{array}$$

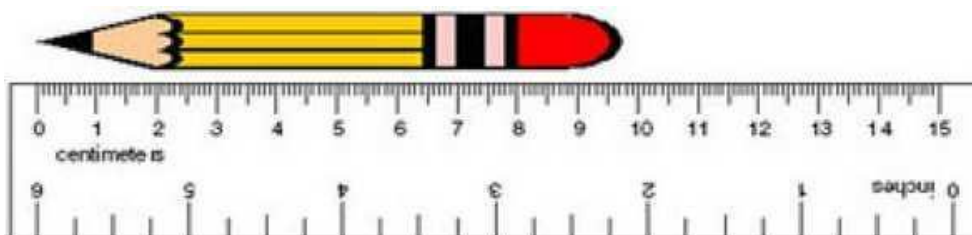
$$\begin{array}{r} 28 \\ \times 18 \\ \hline \end{array}$$

$$\begin{array}{r} 19 \\ \times 47 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ \times 36 \\ \hline \end{array}$$

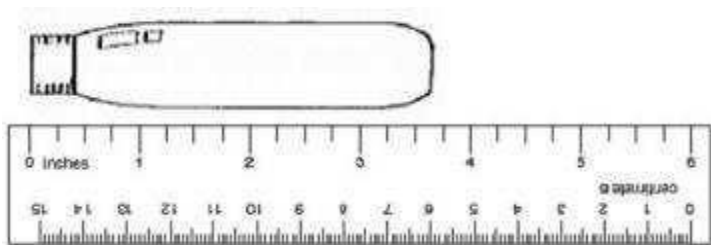
$$\begin{array}{r} 78 \\ \times 37 \\ \hline \end{array}$$

74. This pencil is about how many centimeters long?



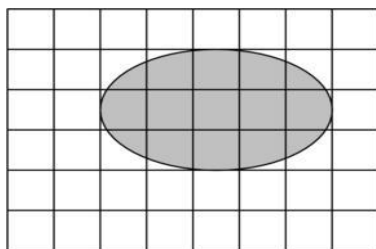
- A. 9 cm
- B. 10 cm
- C. 11 cm
- D. 12 cm

75. What is the length of this light bulb to the nearest inch?



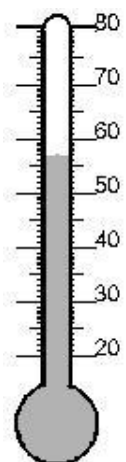
- A. 2 in.
- B. 3 in.
- C. 4 in.
- D. 5 in.

76. What is the best estimate of the area, in square centimeters, of the SHADED FIGURE on the grid below? One square equals one square centimeter.

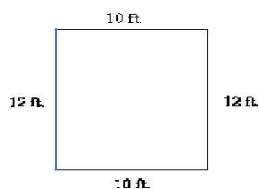


- A. 5 square centimeters
 - B. 11 square centimeters
 - C. 13 square centimeters
 - D. 15 square centimeters
77. Which is most likely the length of a telephone book?
- A. 30 kilometers
 - B. 30 centimeters
 - C. 30 millimeters
 - D. 30 meters
78. Brent is making a sail for a toy boat. The sail needs to be 3.55 cm wide. Which measure would be MOST useful in making the sail?
- A. To the nearest millimeter
 - B. To the nearest decimeter
 - C. To the nearest meter
 - D. To the nearest kilometer

79. What temperature is shown on this thermometer, to the nearest degree?



- A. 50 degrees C
B. 55 degrees C
C. 57 degrees C
D. 60 degrees C
80. Bobbie was writing an article for the school newspaper about the amount of homework the 4th grade teachers were assigning. He was surprised to find out that the average student only spent 20 minutes per night doing homework. To make it sound longer, he decided to convert the time from minutes to seconds in the article. How many seconds did the average student spend on homework?
- A. 80 seconds
B. 120 seconds
C. 800 seconds
D. 1,200 seconds
81. Sheryl planned to buy a wall paper border for her bedroom. She measured the lengths of the walls and found the perimeter of her room. Use the picture below to determine the perimeter.

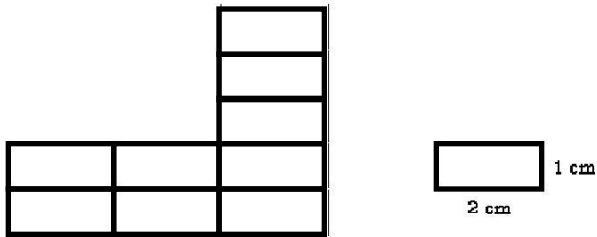


- A. 22 ft.
B. 34 ft.
C. 44 ft.
D. 120 ft.

82. Sheryl may want to buy new carpeting for her room. She needs the square footage of the room to take to the store to price how much carpeting would be. What is the area of her room in the picture above?

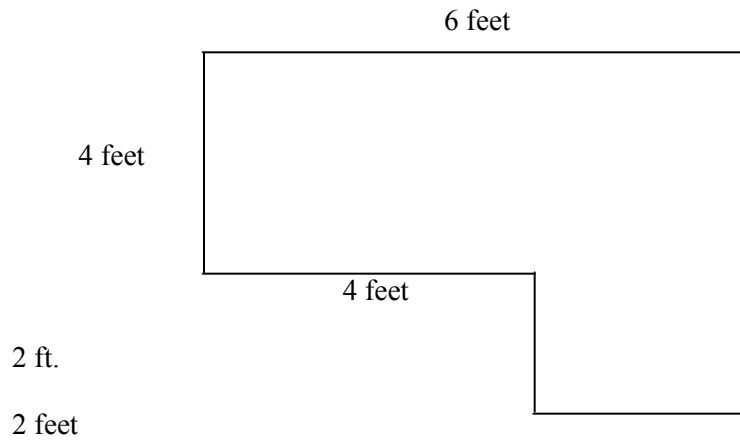
- A. 22 square feet
- B. 120 square feet
- C. 100 square feet
- D. 144 square feet

83. Using the formula for finding the area, what is the area of the figure below?



- A. 18 sq. cm.
- B. 22 sq. cm.
- C. 32 sq. cm.
- D. 54 sq. cm.

84. Find the perimeter of the figure below?

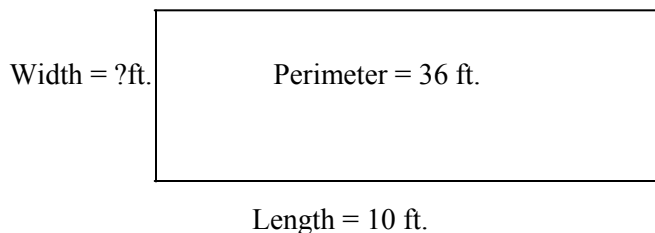


- A. 12 feet
- B. 18 feet
- C. 24 feet
- D. 36 feet

85. What is the area of the figure above?

- A. 12 square feet
- B. 28 square feet
- C. 24 square feet
- D. 36 square feet

86. Sharon had a rectangular garden with a perimeter of 36 feet. The fence surrounding it was falling down on one of the short sides (width). If the length of the garden was 10 feet, how many feet of fence did she need to replace the broken portion (width) of the fence?



- A. 6 feet
- B. 8 feet
- C. 10 feet
- D. 26 feet

87. What is the area of the rectangle garden on the previous page (#86)?

- A. 6 square feet
- B. 18 square feet
- C. 80 square feet
- D. 100 square feet

88. If the perimeter of a square is 48 cm, what is the length of each side? (Draw a picture and think of the key word of what type of shape it is.)

- A. 8 cm
- B. 10 cm
- C. 12 cm
- D. 24 cm

89. What is the width of a rectangle that has a length of 6 feet and an area of 60 square feet?
Draw a picture.

- A. 10 feet
- B. 12 feet
- C. 24 feet
- D. 66 feet

90. What is the width of a rectangle with a length of 5 inches and a perimeter of 16 inches? Draw a picture.

- A. 2 inches
- B. 3 inches
- C. 8 inches
- D. 21 inches

91. Sarah opens her book. What is the angle formed by the open book?

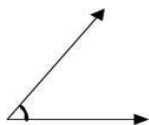


- A. less than a right angle (acute)
- B. equal to a right angle
- C. greater than a right angle (obtuse)
- D. cannot tell without a picture of a right angle

92. Which of the following is closest to 8×0.92 ?

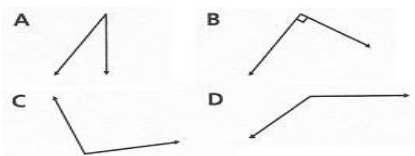
- A. 800
- B. 80
- C. 8

93. What is the size of this angle?

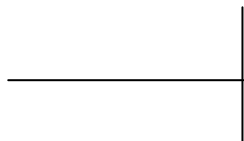


- A. acute
- B. equal to a right angle
- C. obtuse
- D. cannot tell without a picture of a right angle

94. Which angle is a right angle?

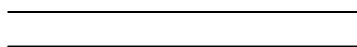


95. These lines are



- A. parallel
- B. perpendicular
- C. not intersecting

96. These lines are



- A. parallel
- B. perpendicular
- C. intersecting

97. Find the difference. Remember bottom bigger better borrow.

$$\begin{array}{r} 307 \\ - 147 \\ \hline \end{array}$$

$$\begin{array}{r} 821 \\ - 424 \\ \hline \end{array}$$

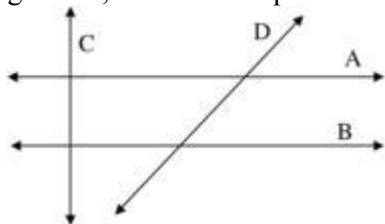
$$\begin{array}{r} 600 \\ - 323 \\ \hline \end{array}$$

$$\begin{array}{r} 501 \\ - 247 \\ \hline \end{array}$$

$$\begin{array}{r} 427 \\ - 247 \\ \hline \end{array}$$

$$\begin{array}{r} 800 \\ - 248 \\ \hline \end{array}$$

98. In the drawing below, which line is parallel to line A?

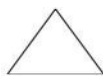


- A. none of them
- B. B
- C. C
- D. D

In the drawing above, which line is perpendicular to A?

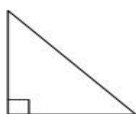
- A. none of them
- B. B
- C. C
- D. D

99. Which type of triangle has only 2 equal sides, like the drawing below?



- A. equilateral triangle
- B. isosceles triangle
- C. pyramid
- D. right triangle

100. Which geometric figure is shown here?



- A. equilateral triangle
- B. isosceles triangle
- C. pyramid
- D. right triangle

101. Answer the following questions on the figure below.



How many vertices does the box above have?

- A. 3 vertices
- B. 8 vertices
- C. 10 vertices
- D. 18 vertices

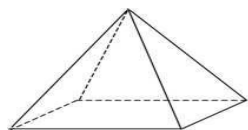
How many faces does the box above have?

- A. 6 faces
- B. 8 faces
- C. 10 faces
- D. 18 faces

How many edges does the box above have?

- A. 3 edges
- B. 9 edges
- C. 12 edges
- D. 18 edges

102. Answer the following questions using the figure below.



How many faces does this figure have?

- A. 2 faces
- B. 3 faces
- C. 4 faces
- D. 5 faces

How many vertices does the figure in #102 have?

- A. 2 faces
- B. 3 faces
- C. 4 faces
- D. 5 faces

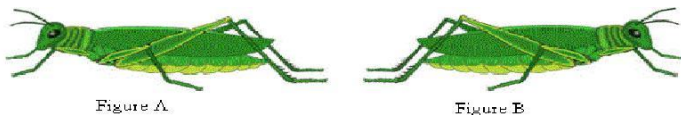
How many edges does the figure #102 have?

- A. 3 edges
- B. 4 edges
- C. 5 edges
- D. 8 edges

103. Which of these shapes can be folded in half so that both halves are the same (line symmetry)? Show this by drawing the line of symmetry on the figure, and then choose the correct answer.



104. Which transformation has taken place to figure A to create figure B?



- A. Tessellation
- B. Copy
- C. Flip
- D. Slide

105. Sharon had a bag of 12 marbles. She gave 8 of the marbles to Don. Which fractional part of the marbles did Sharon have left?

- A. $\frac{8}{12}$
- B. $\frac{4}{8}$
- C. $\frac{4}{12}$
- D. $\frac{1}{4}$

106. Laura wrote 200 words on the first page of her journal. After the second page, she had 400 words. If the pattern continues, how many pages will it take her to write 1000 words? Continue to fill in the table to find the answer.

Page Number	Words	Total words
1	200	200
2	200	400
3		
4		
5		
6		
7		

- A. 3
- B. 4
- C. 5
- D. 6

107. Answer the following questions using this set of data. { 2, 2, 3, 5, 10, 10, 10 }

What is the median?

- A. 5
- B. 6
- C. 7
- D. 8

What is the mode?

- A. 2
- B. 5
- C. 8
- D. 10

What is the range?

- A. 5
- B. 6
- C. 8
- D. 10

108. What is the length of a rectangle with a width of 4 centimeters and a perimeter of 28 centimeters?

- A. 7 centimeters
- B. 10 centimeters
- C. 20 centimeters
- D. 24 centimeters

109. Answer the following questions using this set of data.

8 11 18 11 20 9

What is the median?

- A. 8
- B. 9
- C. 11
- D. 20

What is the range?

- A. 8
- B. 12
- C. 18
- D. 20

What is the mode?

- A. 8
- B. 9
- C. 11
- D. 15

110. In which set is the median the same as the range?

- A. 3, 4, 6, 8, 3, 4
- B. 2, 4, 5, 6, 4
- C. 1, 5, 6, 10, 4
- D. 7, 8, 3, 6, 1

111. Divide $875 \div 5$. Show your work!

- A.
- B.
- C.

112. Multiply 46 by 78. Show your work!

- A.
- B.
- C.

113. How do you write 45 hundredths as a fraction and decimal?

_____ fraction

_____ decimal

114. The chart below shows the number of minutes that Katie spent on her computer each day for one week.

Katie's Computer Time

Day	Number of Minutes
Sunday	59
Monday	65
Tuesday	42
Wednesday	84
Thursday	64
Friday	37
Saturday	46

What number represents the median of the data in the chart?

- A. 47
- B. 53
- C. 59
- D. 37

What is the range of the data in the chart?

- A. 37
- B. 47
- C. 88
- D. 92

115. What is the median for this set of numbers?

2 8 4 4 15 7 14

- A. 4
- B. 7
- C. 8
- D. 13

116. Find the range of: 4, 12, 13, 6, 5, 8

- A. 4
- B. 8
- C. 9
- D. 13

117. Find the median of: 9, 4, 3, 7, 2, 8, 4

- A. 4
- B. 5
- C. 6
- D. 7

118. Find the sum or difference: Watch the signs.

$\begin{array}{r} 135 \\ +479 \\ \hline \end{array}$	$\begin{array}{r} 546 \\ +137 \\ \hline \end{array}$	$\begin{array}{r} 71 \\ -18 \\ \hline \end{array}$	$\begin{array}{r} 50 \\ -26 \\ \hline \end{array}$	$\begin{array}{r} 304 \\ +235 \\ \hline \end{array}$	$\begin{array}{r} 63 \\ -42 \\ \hline \end{array}$	$\begin{array}{r} 426 \\ -135 \\ \hline \end{array}$
--	--	--	--	--	--	--

$\begin{array}{r} 17 \\ +18 \\ \hline \end{array}$	$\begin{array}{r} 54 \\ -39 \\ \hline \end{array}$	$\begin{array}{r} 135 \\ -53 \\ \hline \end{array}$	$\begin{array}{r} 3.2 \\ +2.8 \\ \hline \end{array}$	$\begin{array}{r} 8.8 \\ +1.3 \\ \hline \end{array}$	$\begin{array}{r} 8.1 \\ -5.7 \\ \hline \end{array}$	$\begin{array}{r} 4.8 \\ -2.6 \\ \hline \end{array}$
--	--	---	--	--	--	--

$\begin{array}{r} 400 \\ -37 \\ \hline \end{array}$	$\begin{array}{r} 621 \\ -57 \\ \hline \end{array}$	$\begin{array}{r} 842 \\ -51 \\ \hline \end{array}$	$\begin{array}{r} 699 \\ +23 \\ \hline \end{array}$	$\begin{array}{r} 85 \\ +57 \\ \hline \end{array}$	$\begin{array}{r} 286 \\ -44 \\ \hline \end{array}$	$\begin{array}{r} 73 \\ +45 \\ \hline \end{array}$
---	---	---	---	--	---	--

119. What is the range of the data set below?

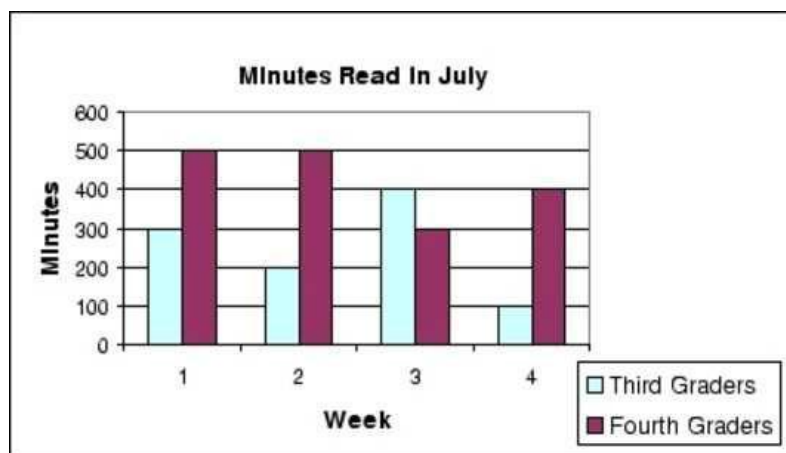
2, 1, 7, 3, 5, 2, 9, 7, 10, 4, 2, 10

- A. 2
- B. 8
- C. 9
- D. 10

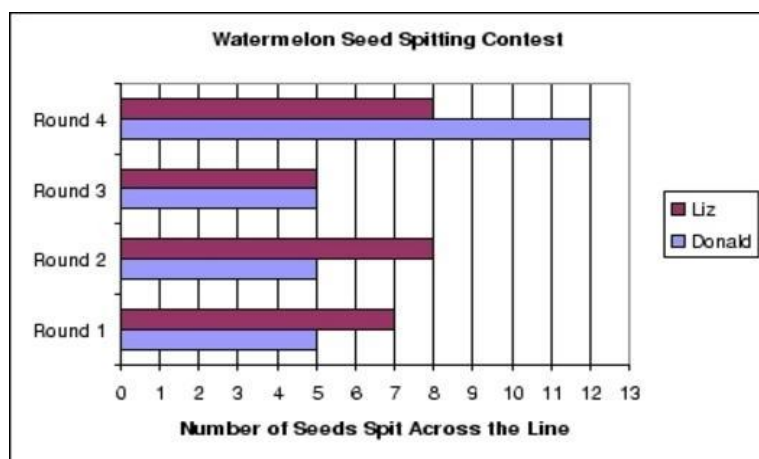
120. Which shows the fractions in order from least to greatest?

- A. $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$
- B. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$
- C. $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{2}$

121. During July, the third and fourth graders kept track of the number of minutes they read each week. Use this graph to figure out how many minutes total the third graders read in July.

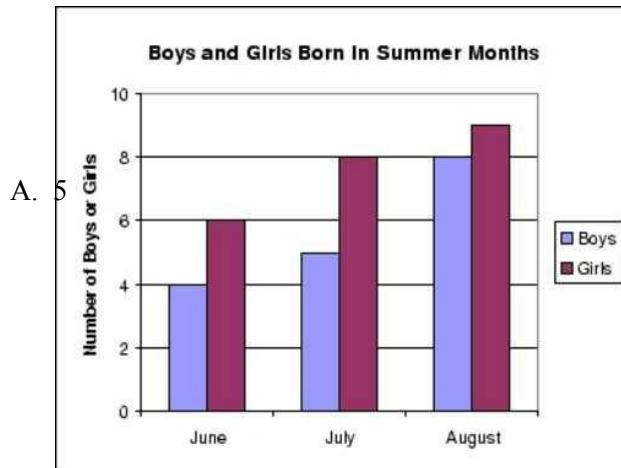


- A. 250
 B. 400
 C. 1000
 D. 2700
122. How many more total seeds did Liz spit across the line than Donald, in all 4 rounds?



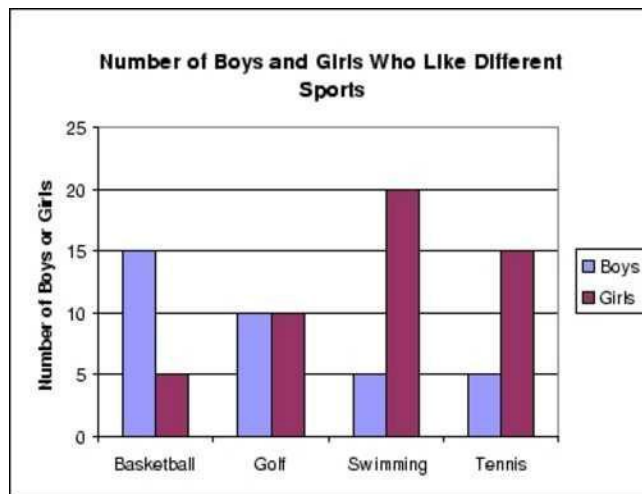
- A. 1
 B. 4
 C. 5
 D. 7

123. How many more girls were born in June through August than boys?



- A. 5
- B. 6
- C. 7
- D. They are the same

124. How many more boys like baseball than girls?



- A. 5
- B. 10
- C. 15
- D. 20

125. Do the following divisions. Then check your answer. Show your work. No calculators!

Check your work:

A. $1524 \div 6 = \underline{\hspace{2cm}}$

$$\begin{array}{r} \times 6 \\ \hline 1524 \end{array}$$

B. $380 \div 10 = \underline{\hspace{2cm}}$

$$\begin{array}{r} \times 10 \\ \hline 380 \end{array}$$

C. $4235 \div 10 = \underline{\hspace{2cm}}$

$$\begin{array}{r} \times \underline{\hspace{2cm}} \\ \hline \end{array}$$

D. $4 \overline{) 769}$

$$\begin{array}{r} \times \underline{\hspace{2cm}} \\ \hline \end{array}$$

E. $5 \overline{) 765}$

$$\begin{array}{r} \times \underline{\hspace{2cm}} \\ \hline \end{array}$$

126. Shade $\frac{3}{5}$ of the boxes below:



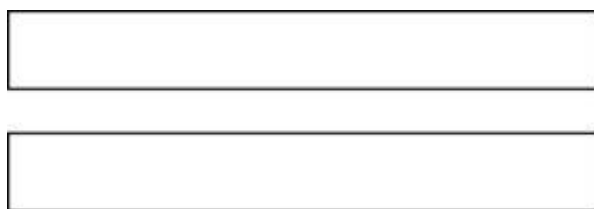
127. Place these two fractions on the two number lines below to show why they are equivalent.

$$\frac{6}{8} \quad \frac{3}{4}$$



128. Show how these two fractions are equal by shading some of each rectangle.

$$\frac{1}{2} \quad \frac{2}{4}$$

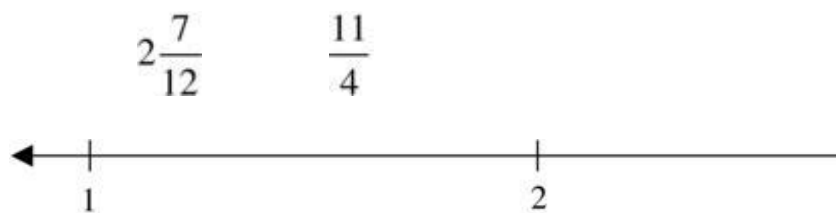


129. Explain how these two fractions are equal.

$$\frac{1}{3} \quad \frac{2}{6}$$

You may use fraction bars or number lines to illustrate your explanation.

130. Locate these two fractions on the number line, label each, and then explain which is larger.



_____ is larger.

131. Locate and label these two fractions on the number line. Then tell which is larger.



_____ is larger

132. On the strips below, shade and label the following fractions.

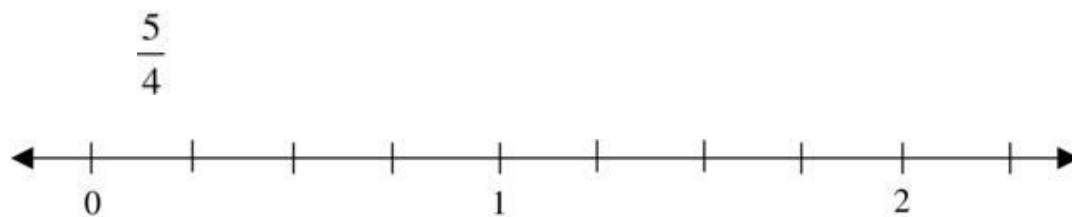
$\frac{2}{3}$ $\frac{4}{6}$ $\frac{8}{12}$

Largest fraction _____

Mid size fraction _____

Smallest fraction _____

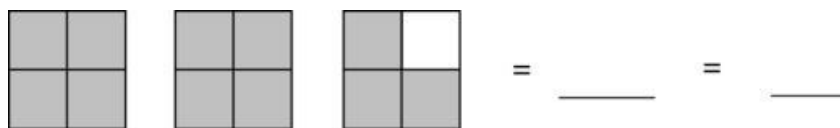
133. Locate and label this fraction on the number line. Then write it as a mixed number:



134. Write this fraction as a mixed number. Then create a picture that represents it as a mixed number:

$$\frac{13}{3}$$

135. Identify the shaded portion of this picture as a mixed number and an improper fraction.



fractions in order from least to greatest: Draw a picture

$$\frac{11}{3} \quad \frac{1}{6} \quad 1\frac{2}{3}$$

136. Write the following

137. Write the following fractions in order from greatest to least.

$$1\frac{1}{4} \quad \frac{3}{4} \quad \frac{9}{4}$$

138. Solve the following problems:

$$\frac{3}{4} + \frac{2}{4} =$$

$$\frac{3}{4} - \frac{2}{4} =$$

$$\frac{8}{12} - \frac{1}{4} =$$

$$\frac{8}{12} + \frac{1}{4} =$$

139. Using a ruler and a tool or object with a 90 degree corner, draw and label all of the following:

A pair of intersecting lines that is not perpendicular.

A pair of perpendicular lines.

A pair of parallel lines.

Draw a right angle.

Draw an obtuse angle.

141. Find the quotients.

$$\overline{2)2} \quad \overline{3)9} \quad \overline{8)32} \quad \overline{7)49} \quad \overline{5)10} \quad \overline{4)0} \quad \overline{1)1} \quad \overline{4)8} \quad \overline{2)12} \quad \overline{9)54} \quad \overline{1)3} \quad \overline{1)2} \quad \overline{2)4}$$

$$\overline{8)8} \quad \overline{7)63} \quad \overline{8)40} \quad \overline{5)0} \quad \overline{4)4} \quad \overline{4)12} \quad \overline{9)45} \quad \overline{9)63} \quad \overline{6)6} \quad \overline{3)12} \quad \overline{1)7} \quad \overline{3)0} \quad \overline{1)9}$$

$$\overline{2)16} \quad \overline{3)3} \quad \overline{3)15} \quad \overline{5)20} \quad \overline{3)18} \quad \overline{3)6} \quad \overline{5)15} \quad \overline{7)0} \quad \overline{9)27} \quad \overline{4)16} \quad \overline{7)21} \quad \overline{4)20} \quad \overline{7)28}$$

$$\overline{8)16} \quad \overline{3)21} \quad \overline{9)18} \quad \overline{4)24} \quad \overline{2)6} \quad \overline{1)8} \quad \overline{5)35} \quad \overline{7)35} \quad \overline{3)27} \quad \overline{6)36} \quad \overline{3)24} \quad \overline{2)0} \quad \overline{4)32}$$

$$\overline{9)9} \quad \overline{4)36} \quad \overline{6)42} \quad \overline{5)40} \quad \overline{8)64} \quad \overline{7)14} \quad \overline{6)30} \quad \overline{8)56} \quad \overline{1)5} \quad \overline{4)28} \quad \overline{7)56} \quad \overline{8)24} \quad \overline{6)24}$$

$$81 \div 9 = \underline{\quad\quad\quad} \quad 48 \div 6 = \underline{\quad\quad\quad} \quad 18 \div 6 = \underline{\quad\quad\quad} \quad 42 \div 7 = \underline{\quad\quad\quad}$$

$$10 \div 2 = \underline{\quad\quad\quad} \quad 54 \div 6 = \underline{\quad\quad\quad} \quad 36 \div 9 = \underline{\quad\quad\quad} \quad 45 \div 5 = \underline{\quad\quad\quad}$$

$$72 \div 8 = \underline{\quad\quad\quad} \quad 8 \div 2 = \underline{\quad\quad\quad} \quad 72 \div 9 = \underline{\quad\quad\quad} \quad 6 \div 1 = \underline{\quad\quad\quad}$$

$$25 \div 5 = \underline{\quad\quad\quad} \quad 5 \div 5 = \underline{\quad\quad\quad} \quad 18 \div 2 = \underline{\quad\quad\quad} \quad 30 \div 5 = \underline{\quad\quad\quad}$$

CONGRATULATIONS!!! You have completed the summer math packet. You are now ready for 5th grade success! Please turn this packet into your 5th grade teacher, the first week of school.



