

**FOURTH GRADE**  
**GRADE LEVEL EXPECTATIONS IN MATHMATICS**

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](http://www.wildmath.com) Select "Play the game". Select addition, subtraction or multiplication and grade. You can race to beat your time.

[www.harcourtschool.com](http://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](http://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](http://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](http://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](http://www.illuminations.nctm.org) Select activities then select grade level. Click on Search.

[www.aaamath.com](http://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](http://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.

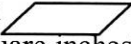
**Right angle:** An angle at  $90^\circ$  like a corner of a piece of paper.

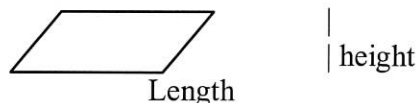
**Acute angle:** An angle smaller than a right angle.

**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 5<sup>th</sup> Grade Summer Math Packet

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

5<sup>th</sup> 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.

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

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

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

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

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

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

13. Since  $5 \times 20 = 100$ , which number will complete the number sentence below to make it true?

$$5 \times \underline{\quad} \times 5 = 100$$

- 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  $3 \times 49$ ?

- 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  $57 \times 4$ ?

- 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  $83 \times 5$ ?

- 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.  $18 \times 3 = \underline{\quad}$
- B.  $18 + 3 = \underline{\quad}$
- C.  $18 \div 3 = \underline{\quad}$
- D.  $18 - 3 = \underline{\quad}$

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

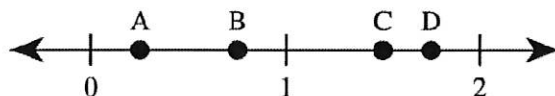
39. Which is equal to 0.45?

- 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

$\frac{4}{10} =$  \_\_\_\_\_       $\frac{8}{10} =$  \_\_\_\_\_       $\frac{23}{100} =$  \_\_\_\_\_       $\frac{56}{100} =$  \_\_\_\_\_

$\frac{8}{100} =$  \_\_\_\_\_       $\frac{5}{10} =$  \_\_\_\_\_       $\frac{66}{100} =$  \_\_\_\_\_       $\frac{2}{10} =$  \_\_\_\_\_

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:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

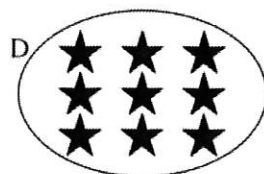
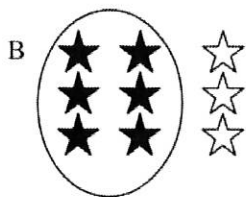
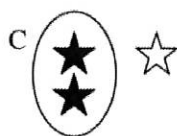
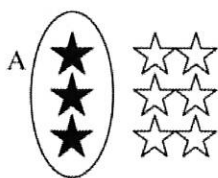
$8 \times 7 = \underline{\quad}$

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

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

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

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?



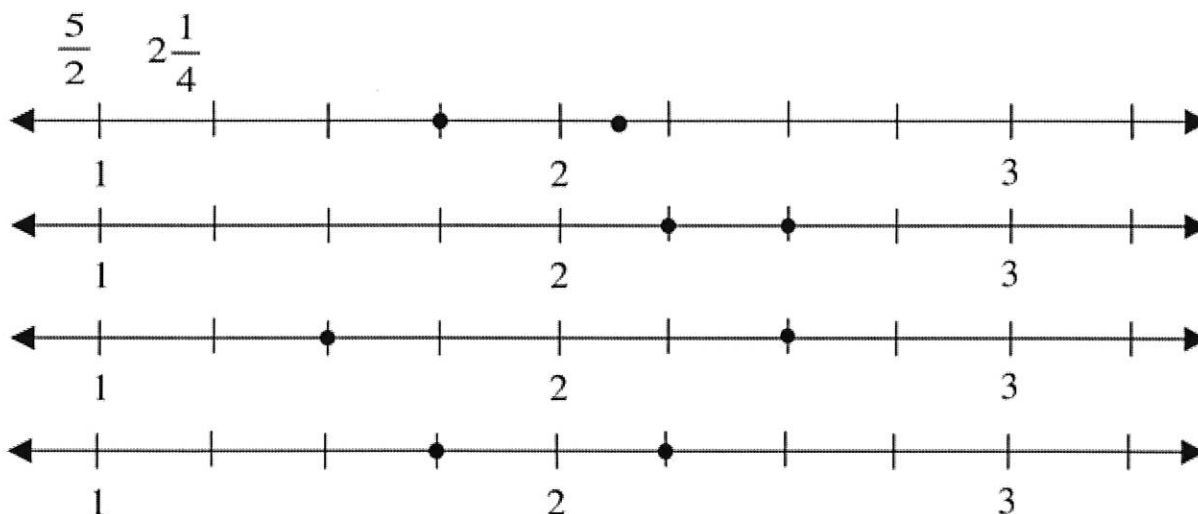
A.  $\frac{3}{5}$

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

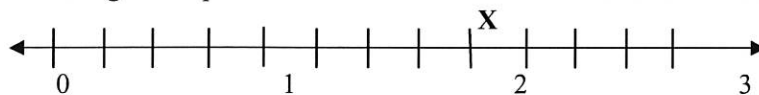
C.  $\frac{5}{8}$

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?



- 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:

$1 \times 9 = \underline{\hspace{2cm}}$

$3 \times 6 = \underline{\hspace{2cm}}$

$9 \times 7 = \underline{\hspace{2cm}}$

$6 \times 2 = \underline{\hspace{2cm}}$

$8 \times 6 = \underline{\hspace{2cm}}$

$2 \times 2 = \underline{\hspace{2cm}}$

$3 \times 8 = \underline{\hspace{2cm}}$

$9 \times 9 = \underline{\hspace{2cm}}$

$24 \div 3 = \underline{\hspace{2cm}}$

$7 \times 7 = \underline{\hspace{2cm}}$

$56 \div 7 = \underline{\hspace{2cm}}$

$4 \times 0 = \underline{\hspace{2cm}}$

$48 \div 6 = \underline{\hspace{2cm}}$

$18 \div 6 = \underline{\hspace{2cm}}$

$7 \times 3 = \underline{\hspace{2cm}}$

$7 \times 7 = \underline{\hspace{2cm}}$

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

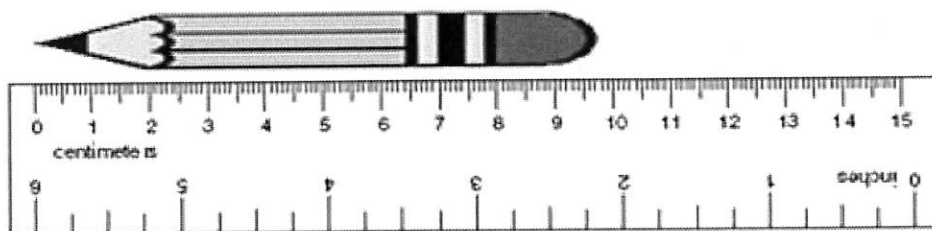
72. Find the difference: Remember “bottom bigger better borrow” and you can only borrow from next door. You can always check your answers by adding your answer and the second number and this should equal your top number.

$701$	$68$	$100$	$63$	$35$	$114$	$66$
$\underline{-35}$	$\underline{-27}$	$\underline{-37}$	$\underline{-47}$	$\underline{-15}$	$\underline{-37}$	$\underline{-24}$

73. Find the product:

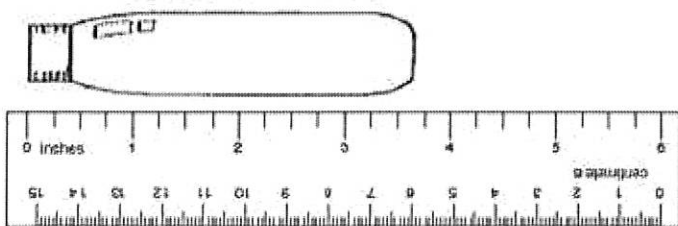
$36$	$47$	$59$	$28$	$19$	$56$	$78$
$\underline{\times 47}$	$\underline{\times 68}$	$\underline{\times 39}$	$\underline{\times 18}$	$\underline{\times 47}$	$\underline{\times 36}$	$\underline{\times 37}$

74. This pencil is about how many centimeters long?



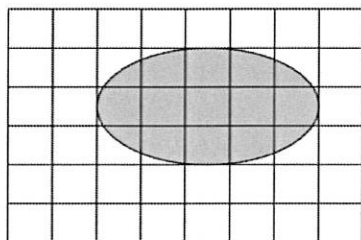
- A. 9 cm
- B. 10 cm
- C. 11 cm
- D. 12 cm

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

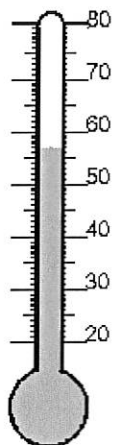
77. Which is most likely the length of a telephone book?

- A. 30 kilometers
- B. 30 centimeters
- C. 30 millimeters
- D. 30 meters

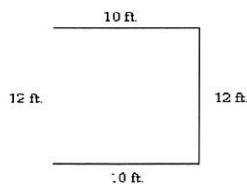
78. Brent is making a sail for a toy boat. The sail needs to be 3.55 cm wide. Which measure would be MOST useful in making the sail?

- 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 4<sup>th</sup> 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?

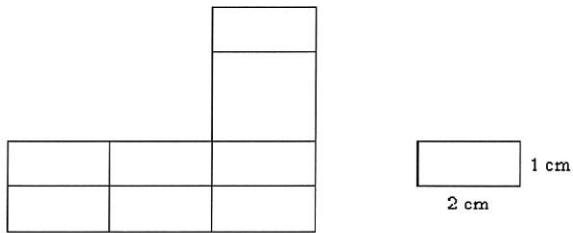
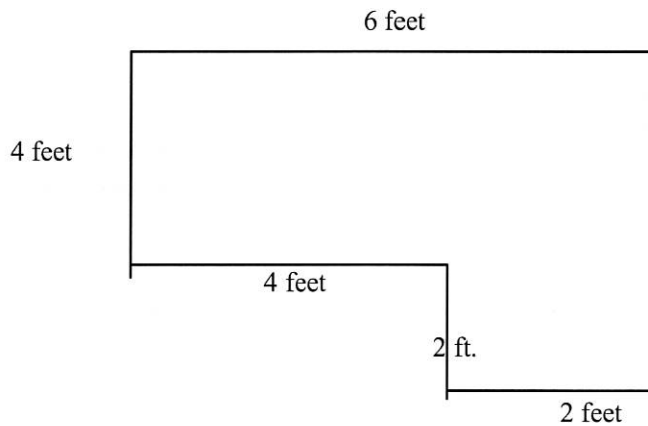


Figure A

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

84. Find the perimeter of the figure below?

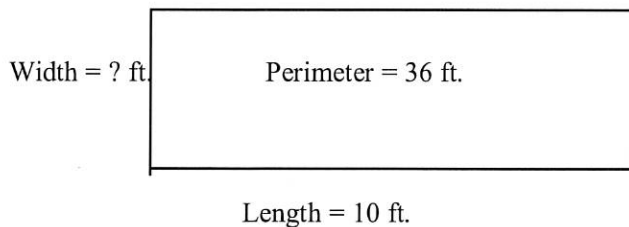


- A. 12 feet
- B. 18 feet
- C. 24 feet
- D. 36 feet

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.

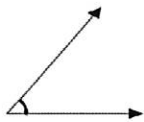
- A. 2 inches
- B. 3 inches
- C. 8 inches
- D. 21 inches

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

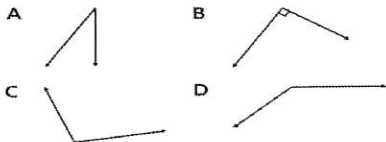


- A. less than a right angle (acute)
  - B. equal to a right angle
  - C. greater than a right angle (obtuse)
  - D. cannot tell without a picture of a right angle
92. Which of the following is closest to  $8 \times 0.92$ ?
- A. 800
  - B. 80
  - C. 8

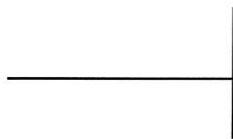
93. What is the size of this angle?



- 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.

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

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

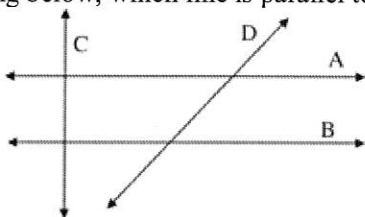
$$\begin{array}{r} 600 \\ - 323 \\ \hline \end{array}$$

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

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

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

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?

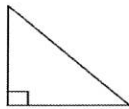
- A. none of them
- B. B
- C. C
- D. D

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



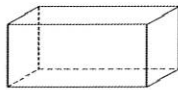
- A. equilateral triangle
- B. isosceles triangle
- C. pyramid
- D. right triangle

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