



Bayonne Public Schools

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Dear Parents/Guardians,

The Bayonne School District's goal is the education of Bayonne's children. It is our expectations that students see the beauty and importance of mathematics.

These Mathematical projects and activities allow students to explore mathematics in exciting ways. Your child will be receiving a packet of math activities which he/she will complete over the summer months. All assignments must be presented to your child's math teacher no later than Monday, September 14, 2009 and will count as one test grade for the first marking period.

Make Math a part of your summer by looking for numbers and shapes on your walks and trips. Practice your basic facts daily!

As partners in your child's education, we request that you sign and return the form below to your child's current mathematics teacher no later than June 5, 2009.

Patricia L. McGeehan, Ed.D.
Superintendent of Schools

Ellen M. O'Connor, Ed.
Assistant Superintendent

Ann Marie Palmieri-Monahan
Director of Mathematics

-----Please cut and return bottom portion to your child's teachers-----

STUDENT NAME _____ GRADE _____

TEACHER _____ SCHOOL _____

PARENT/GUARDIAN SIGNATURE _____

Building Bridges to Geometry Honors

- I. Define and give mathematical example of the listed words
- II. Screening Test (42 multiple choice questions)
- III. Mathematics concepts covered in screening test and Student's comments and Parent's comment must be completed

Resources but not limited too:

Purplemath.com

Mathforum.org/dr.math

Themathworksheetsite.com

Dictionary

I.

Summer Math Assignment for students entering Geometry Honors

Define each word and give a mathematical example

Acute angle

Adjacent angle

Altitude of a triangle

Angle bisector

Apothem

Arc

Circumference

Collinear

Complementary angles

Congruent

Conjecture

Coordinate plane

Cross-product property

Diagonal

Diameter

Dilation

Enlargement

Euclidean geometry

Golden Rectangle

Hypotenuse

Integer

Isosceles Triangle

Isosceles Trapezoid

Kite

Lateral Face

Line symmetry

Matrix

Midpoint

Net

Obtuse angle

Origin

Parallel

Perpendicular bisector

Polygon

Prism

Pythagorean triple

Radius

Rotation

Scale factor

Similar

Skew Lines

Sphere

Supplementary angles

Tessellation

Vector

II.

Screening Test

Choose the best answer for the problems.

1. Which is the place value of the underlined digit?

8,147,456,748

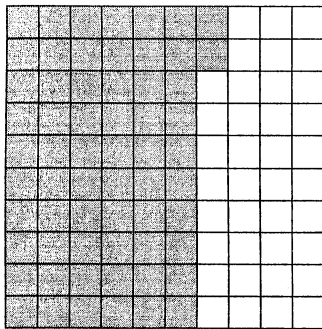
- A millions
- B hundred thousands
- C ten millions
- D ten thousands

2. Which is the value of the underlined digit?

728,426

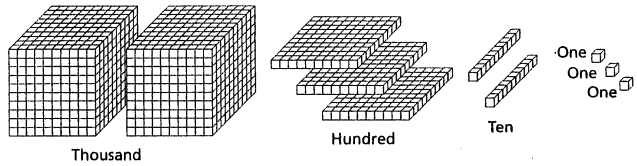
- F 7,000
- G 70,000
- H 700,000
- J 7,000,000

3. Which number does the shaded part of the model represent?



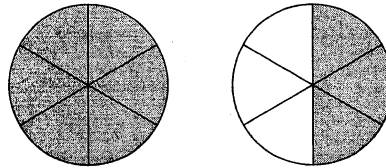
- A 0.75
- B 0.62
- C 0.38
- D 0.22

4. Which number is modeled below?



- F 123
- G 2,023
- H 2,323
- J 11,323

5. Which fraction is represented by the shaded area below?



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

6. A retail company charted their monthly sales shown in the table below. During which month were sales the greatest?

Retail Sales	
Month	Sales
January	\$2,072,146
February	\$2,126,341
March	\$2,824,271
April	\$2,842,126

- F January
- G February
- H March
- J April

7. Which statement is false?

- A $0.8 = \frac{3}{5}$
- B $\frac{2}{3} > 0.34$
- C $2.375 > 2\frac{1}{4}$
- D $3\frac{8}{11} < 3\frac{12}{13}$

8. Find the sum.
$$\begin{array}{r} 167,654 \\ + 98,786 \\ \hline \end{array}$$

- F 266,440
- G 275,330
- H 276,540
- J 286,330

9. Find the difference.
$$\begin{array}{r} 80,092 \\ - 10,063 \\ \hline \end{array}$$

- A 70,411
- B 70,310
- C 70,029
- D 60,029

10. Find the sum. $\frac{16}{31} + \frac{17}{31}$

- F $\frac{1}{31}$
- G $1\frac{2}{31}$
- H $1\frac{3}{31}$
- J $2\frac{1}{31}$

11. Find the difference. $\frac{34}{45} - \frac{9}{45}$

- A $\frac{7}{15}$
- B $\frac{24}{45}$
- C $\frac{5}{9}$
- D $\frac{15}{9}$

12. Add.
$$\begin{array}{r} 121.347 \\ + 28.821 \\ \hline \end{array}$$

- F 150.168
- G 149.168
- H 142.168
- J 50.168

13. Multiply. $3,240 \times 720$

- A 23,332,900
- B 2,332,800
- C 2,132,900
- D 1,332,802

14. Divide. $88,868 \div 26$

- F 3,510
- G 3,510 R21
- H 3,418
- J 3,418 R21

15. A bakery produces 1,450 muffins per day. About how many dozen muffins are produced in a 5-day work week?

- A about 7,250 dozen
- B about 1,450 dozen
- C about 604 dozen
- D about 506 dozen

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16. Which ratio could be used to solve the following problem?

The scale on a map is 1 inch = 50 miles. The distance between two cities is 425 miles. What is the distance on the map?

F $\frac{425}{x} = \frac{1}{50}$

G $\frac{50}{x} = \frac{1}{425}$

H $\frac{50}{1} = \frac{x}{425}$

J $\frac{1}{50} = \frac{x}{425}$

17. Which number is odd?

A 372,244

B 860,320

C 760,216

D 820,371

18. Which is the prime factorization of 300?

F $2^2 \cdot 5^3$

G $2^2 \cdot 3 \cdot 5^3$

H $2^2 \cdot 3 \cdot 5^2$

J $2 \cdot 3 \cdot 5^3$

19. Simplify. $\frac{8(7 - 4)^2 + 3 \cdot 2 \cdot 5}{2}$

A 39

B 51

C 255

D 750

20. You need to control the growing temperature for your bean plants. Which unit of measurement would you use?

F meters

G liters

H grams

J degrees

21. When you measure the temperature of your bean plants (from question 20) which instrument should you use?

A micrometer

B stick

C thermometer

D ruler

22. How many feet of fencing is needed to fence in a 130 feet by 225 feet area?

F 355 feet

G 385 feet

H 710 feet

J 29,250 feet

23. A recreation park measures 560 meters long by 700 meters wide. A 250-meter by 150-meter area of the park is used for soccer and baseball fields. How much of the area remains?

A 37,500 square meters

B 80,000 square meters

C 354,500 square meters

D 392,000 square meters

24. A painter plans to paint the walls of a living room. In order to help estimate how many cans of paint are needed, what needs to be determined?

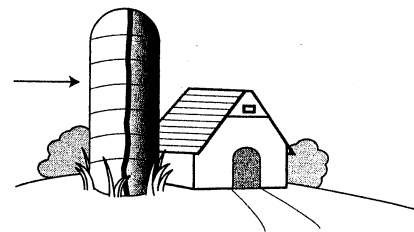
F the perimeter of the living room

G the total area of the living room

H the volume of the living room

J the area of the living room walls

25. What is the best geometric description of the figure shown?



A circle

B cylinder

C sphere

D hemisphere

31. The table shows the number of different colors of marbles Thomas found when he opened a bag.

Marble Colors	
Color	Number
Red	15
Purple	18
Yellow	12
Orange	16
Green	14

What is the probability that he will randomly pick up a yellow marble?

- A 25%
- B 20%
- C 16%
- D 12%

32. A spinner is spun and the results are shown in the table below.

Color	Tally
Silver	
Gold	

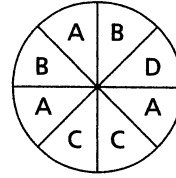
What is the probability of spinning silver?

- F likely
- G unlikely
- H certain
- J impossible

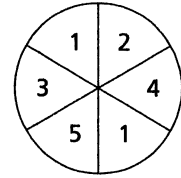
33. Mitchell is making sandwiches for lunch. He has the choice of turkey, roast beef, or ham, wheat or white bread, American, Swiss, or Colby Cheese. How many different sandwiches can Mitchell make?

- A 3
- B 8
- C 18
- D 20

34. What is the probability of spinning a letter B on Spinner 1 and the number 1 on Spinner 2?



Spinner 1



Spinner 2

F $\frac{3}{4}$

G $\frac{1}{2}$

H $\frac{1}{3}$

J $\frac{1}{12}$

35. Which number will replace the question mark in the number pattern shown below?

0, 2, 2, 4, ?, 10, 16, 26, ...

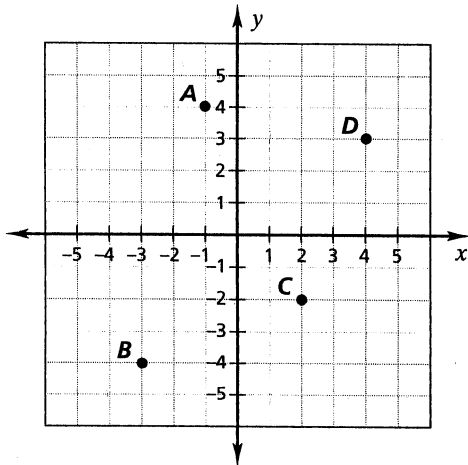
- A 4
- B 5
- C 6
- D 8

36. Which rule describes the pattern?

x	y
5	14
3	10
1	6
-1	2

- F Divide x by 4 and add 3.
- G Multiply x by 2 and add 4.
- H Add 9 to x .
- J Multiply by 6.

37. What are the coordinates of point A?



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

38. Evaluate $5(x + y)^2$ when $x = 3$ and $y = 9$.

- F 720
- G 149
- H 120
- J 60

39. Which is the algebraic sentence for “twice a number decreased by 8 is 112”?

- A $2x + 8 = 112$
- B $2x - 8 = 112$
- C $8x = 112$
- D $\frac{x}{8} - 2 = 112$

40. Solve.

$$2y + 35 = -7$$

- F $y = 14$
- G $y = 21$
- H $y = -14$
- J $y = -21$

41. Solve.

$$6x - 4 = 68$$

- A $x = 455$
- B $x = 20$
- C $x = 12$
- D $x = 6$

42. Solve.

$$\frac{m}{9} + 7 = 15$$

- F $m = \frac{8}{9}$
- G $m = 17$
- H $m = 27$
- J $m = 72$

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III.

Screening Test Report

Mathematics Concepts	Test Item(s)
Identify the place value and actual value of digits in whole numbers.	1, 2
Connect model, number word, or number using various models and representations for whole numbers, fractions, and decimals.	3, 4, 5
Order or compare whole numbers, decimals, or fractions.	6, 7
Add and subtract: whole numbers.	8, 9
Add and subtract: fractions with like denominators.	10, 11
Add and subtract: decimals through ten-thousandths.	12
Multiply whole numbers: no larger than six-digit by three-digit.	13
Divide whole numbers: up to six-digit by three-digit.	14
Solve application problems involving decimal operations.	15
Use simple ratios to describe problem situations.	16
Identify odd and even numbers.	17
Identify factors of whole numbers.	18
Apply basic properties of operations.	19
Identify the attribute that is appropriate to measure in a given situation.	20
Select or use appropriate measurement instruments such as ruler, meter stick, clock, thermometer, or other scaled instruments.	21
Solve problems involving perimeter of plane figures, providing the formula as part of the problem.	22
Solve problems involving area of rectangles, providing the formula as part of the problem.	23
Select or use appropriate type of unit for the attribute being measured such as length, time, or temperature.	24
Describe (informally) real world objects using simple plane and simple solid figures.	25
Identify or draw angles and other geometric figures in the plane.	26
Describe attributes of two- and three-dimensional shapes.	27
Assemble simple plane shapes to construct a given shape.	28
Recognize two-dimensional faces of three-dimensional shapes.	29

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Mathematics Concepts	Test Item(s)
Pictograms, bar graphs, circle graphs, line graphs, line plots, tables, and tallies.	30
Read or interpret a single set of data. Use informal probabilistic thinking to describe chance events (i.e., likely and unlikely, certain and impossible).	31, 32
List all possible outcomes of a given situation or event.	33
Represent the probability of a given outcome from pictures of spinners and other devices.	34
Recognize, describe, or extend numerical patterns.	35
Translate between the different forms of representations (symbolic, numerical, verbal, or pictorial) of whole number relationships (such as from a written description to an equation or from a function table to a written description).	36
Graph or interpret points with whole number or letter coordinates on grids or in the first quadrant of the coordinate plane.	37
Use letters and symbols to represent an unknown quantity in a simple mathematical expression.	38
Express simple mathematical relationships using number sentences.	39
Find the value of the unknown in a whole number sentence.	40, 41, 42

Student Comments: _____

Parent Comments: _____

