

## Math Reviewer - Set B

1. What is 828,522 rounded to the nearest thousand?
  - a. 828,000
  - b. 829,000
  - c. 830,000
  - d. 828,500
2. Write "seventy-one billion, one hundred million, eight thousand, one hundred eight" in numerical form.
  - a. 71,100,008,108
  - b. 71,001,008,108
  - c. 71,108,000,108
  - d. 71,000,108,108
3. There are 280 students and 8 teachers in the freshman class at St. Andrew's Academy, 209 students and 6 teachers in the sophomore class, 176 students and 5 teachers in the junior class, and 140 students and 4 teachers in the senior class. What is the total student population?
  - a. 828
  - b. 829
  - c. 795
  - d. 805
4. A college library has 3,908 fiction books, 4,095 non-fiction books, 512 reference books, and 255 magazines. What is the total number of reading materials in the library?
  - a. 8,560
  - b. 8,670
  - c. 8,760
  - d. 8,770
5. Mother asked Aldo to check the electric bill. If the previous month's reading of the electric meter was 9,799 kw-hour and the present reading is 10,001 kw-hour, how many kilowatt hours of electricity were used during the month?
  - a. 192
  - b. 202
  - c. 212
  - d. 222

6. Nina's average reading rate is 242 words per minute. How many words can she read in half an hour?
- 60.5
  - 120
  - 3,630
  - 7,260
7. A class with 40 pupils had 1 absentee on Monday, 2 on Tuesday, 3 on Wednesday, 1 on Thursday, and 3 on Friday. Find the average daily attendance for the week.
- 38
  - 38.5
  - 39
  - 39.5
8. In 10 basketball games, Kal scored 72 field goals (2 points each), 22 free throws (1 point each), and 8 three-point shots. What is his average points per game?
- 10.2
  - 11.8
  - 17.4
  - 19
9. The total enrollment in the 6 freshman sections at Gabriela Silang National High School is 300 students; in 6 sophomore sections, 276 students; in 5 junior sections, 253 students; and in 5 senior sections, 249 students. What is the average student enrollment per section for the entire school?
- 45
  - 49
  - 50
  - 54
10. Community Central Appliance Store purchased the following last month: 5 refrigerators at ₱21,635 each; 5 washing machines at ₱22,995 each; 3 air conditioners at ₱49,000 each; and 8 vacuum cleaners at ₱11,995 each. What was the total cost of the merchandise?
- 466,100
  - 466,110
  - 466,210
  - 466,300

11. A school placed an order for 600 umbrellas, of which  $\frac{1}{3}$  were blue,  $\frac{2}{5}$  were brown, and the rest were black. How many black umbrellas were ordered?
- 120
  - 160
  - 200
  - 240
12. If  $\frac{5}{6}$  of a number is 30, then  $66\frac{2}{3}\%$  of the same number is:
- 15
  - 24
  - 33
  - 36
13. Given that:  $A = 22 \div 2 - 11$ ;  $B = (11 - 4) - 5$ ; and  $C = 10 - 3 \times 4$ . Which of the following equations is true?
- $A = B + C$
  - $A = B - C$
  - $A = B \times C$
  - $C = A + B$
14. Given that:  $A = 5^2 - 3^2$ ;  $B = 4 + 2 \div 2$ ;  $C = 20 - (17 - 1)$ . Which of the following equations is true?
- $A < C$
  - $A = C^2$
  - $A = B + C$
  - $A = B^2 + C$
15. Find the number of days from August 15 to November 16.
- 91
  - 92
  - 93
  - 94
16. Of the fractions  $\frac{4}{7}$ ,  $\frac{5}{11}$ ,  $\frac{9}{19}$ , and  $\frac{11}{23}$ , the largest one is:
- $\frac{4}{7}$
  - $\frac{5}{11}$
  - $\frac{9}{19}$
  - $\frac{11}{23}$

17. To find how much bigger one number is than another we:
- Find the sum
  - Find the difference
  - Find the product
  - Find the quotient
18. The short-cut method of multiplying 164 by 25 is to annex two zeroes to 164 and
- Add 25
  - Divide by 4
  - Divide by 25
  - Multiply by 4
19. To change  $\frac{2}{10}$  to decimals, we
- Divide 10 by 2
  - Divide 2 by 10
  - Multiply 2 by 10
  - Subtract 2 by 10
20. When the product of 6, 7, and 8 is divided by their sum, the result is
- 5
  - 8
  - 13
  - 16
21. The average of the numbers 13, 19, 25, 31, 37 is equal to
- Their sum
  - Their product
  - The middle number
  - Their common difference
22. The smallest number that can be divided by 4, 7, 8, and 21, without leaving a remainder is
- 56
  - 84
  - 126
  - 168

23. If it takes Allan 3 hours and 45 minutes to complete a fifth of a job, how long will it take him to complete the whole job?
- 45 minutes
  - 11 hours and 15 minutes
  - 16 hours and 15 minutes
  - 18 hours and 45 minutes
24. When 1 is divided by a positive fraction less than  $\frac{1}{4}$ , the result is
- $\frac{1}{4}$
  - Less than  $\frac{1}{4}$
  - Less than 4
  - Greater than 4
25. On a Math test, 75% of the members of a class had passing grades. Of these, 20% had the minimum passing grade. What percent of the class had the minimum passing grade?
- 15%
  - 20%
  - 25%
  - 30%
26. Three hundred fifty-seven students are to be assigned to 10 classes such that, as much as possible, the classes will be of the same size. The result will be that
- All classes will be of the same size
  - No class will have more than 35 students
  - Eight classes will be larger than the others
  - Three classes will be smaller than the others
27. Which one of the following statements is not correct?
- When an odd number is divided by an odd number, there is always a remainder.
  - When an odd number is subtracted from an odd number, the result is always even.
  - When an even number is multiplied by an odd number, the result is always even.
  - When an even number is added to an odd number, the result is always even.

28. An auditorium is  $\frac{3}{4}$  full. After 50 people in the audience left, the auditorium became  $\frac{1}{2}$  full. What is the seating capacity of the auditorium?
- 125
  - 180
  - 200
  - 250
29. If the numerator of a fraction is halved and its denominator is multiplied by  $\frac{1}{2}$ , the resulting fraction is equal to the original...
- Multiplied by 2
  - Divided by 2
  - Multiplied by  $\frac{1}{2}$
  - Multiplied by 1
30. Find the number of halves in  $\frac{3}{8}$ .
- $\frac{8}{3}$
  - $\frac{3}{4}$
  - $\frac{1}{3}$
  - $\frac{3}{16}$
31. A mixture contains 12 liters of water and 3 liters of alcohol. If 3 more liters of water is added, what part of the mixture is alcohol?
- $\frac{1}{6}$
  - $\frac{1}{5}$
  - $\frac{1}{2}$
  - $\frac{5}{6}$
32. What is the average of 37 consecutive integers?
- Twice the first
  - The 19th integer
  - The sum of the first and last
  - The difference between the first and the last

33. A number in which the sum of the digits exceeds the hundreds digit by 13 is
- 767
  - 168
  - 384
  - 689
34. A plane travels at a speed of 860 kph. How many kilometers does the plane cover in 1 hour and 15 minutes?
- 688 km
  - 747.8 km
  - 989 km
  - 1,075 km
35. Japan's Maglev train travels at a speed of 600 kph. How many kilometers can it cover in 45 minutes?
- 270 km
  - 450 km
  - 540 km
  - 585 km
36. The average of two fractions is  $\frac{5}{12}$ . One of the fractions is  $\frac{1}{2}$ . Find the other fraction.
- $\frac{5}{6}$
  - $\frac{1}{3}$
  - $\frac{3}{4}$
  - $\frac{1}{6}$
37. The ratio between the sum of 28 and 42, and their difference is
- 1:5
  - 1:9
  - 5:1
  - 2:3
38. At 1 pm, the shadow of a building is 12 meters. At the same time the shadow of a 10-foot-tall tree is 3 feet, 4 inches. Find the height of the building.
- 15 meters
  - 18 meters
  - 24 meters
  - 36 meters

39. The ratio of 4 yards to 3 feet is:
- a. 12:1
  - b. 8:2
  - c. 4:1
  - d. 3:1
40. The ratio of 10 inches to  $4\frac{1}{4}$  ft is:
- a. 5:4
  - b. 5:26
  - c. 4:5
  - d. 10:51
41. The ratio used in making the scale drawing of a machine part is 1:24. The length of the part is 10 feet. The number of inches required to show this length is:
- a. 5 inches
  - b. 6 inches
  - c.  $2\frac{1}{2}$  inches
  - d. 3 inches
42. A tank is 31 inches long, 21 inches wide, and 11 inches high. If one gallon contains 231 cu. inches, find the number of gallons the tank can hold.
- a. 5
  - b. 10
  - c. 12
  - d. 31
43. A train was scheduled to arrive at 11:25 PM but was 40 minutes late. The train will arrive at:
- a. 10:45 AM
  - b. 10:45 PM
  - c. 12:05 AM
  - d. 12:05 PM
44. Vincent gets up at 7:15 AM every morning. At what time must he go to sleep if he is to get  $8\frac{1}{2}$  hours of sleep?
- a. 7:45 PM
  - b. 8:45 PM
  - c. 9:45 PM
  - d. 10:45 PM



45. If the product of seven integers is negative, then, at most, how many of the seven integers could be negative?

- a. One
- b. Three
- c. Five
- d. Seven

46. If 6 parts of alcohol are mixed with 14 parts of water, what part of the mixture is alcohol?

- a.  $\frac{3}{7}$
- b.  $\frac{2}{7}$
- c.  $\frac{3}{10}$
- d.  $\frac{2}{3}$

47. Which of the following fractions is closest to  $\frac{1}{4}$  ?

- a.  $\frac{1}{5}$
- b.  $\frac{3}{4}$
- c.  $\frac{3}{20}$
- d.  $\frac{7}{20}$

48. What part of a gallon is 7 pints? (2 pints = 1 quart; 4 quarts = 1 gallon)

- a.  $\frac{1}{6}$
- b.  $\frac{2}{3}$
- c.  $\frac{7}{8}$
- d.  $\frac{3}{2}$

49. If  $(x - 4) \times 2 = 4$ , what is the value of  $x$ ?

- a. 2
- b. 6
- c. 8
- d. 12

50. Which of the following numbers has the digit 4 in the hundredths place?
- a. 0.004
  - b. 0.040
  - c. 0.400
  - d. 400.0
51. If  $2x + y = 5$ , what is the value of  $6x + 3y$ ?
- a. 6
  - b. 9
  - c. 10
  - d. 15
52. Dee and Sara each bought some pens and an eraser. Dee paid ₱18.50 for 3 pens and 1 eraser. Sara paid ₱12.50 for 2 pens and 1 eraser. They bought the same kind of pens and erasers. What is the price of one pen?
- a. ₱4.00
  - b. ₱4.50
  - c. ₱6.00
  - d. ₱7.50
53. Fifteen kilograms is approximately equal to how many pounds? (1 kg  $\approx$  2.2 lbs)
- a. 3
  - b. 30
  - c. 33
  - d. 6.8
54. The distance between two cities in the Philippines is 5 miles. What is the approximate distance in kilometers? (1.6 km  $\approx$  1 mile)
- a. 0.2
  - b. 5
  - c. 8
  - d. 12
55. Eleven gallons of water is equal to approximately how many liters? (1 liter  $\approx$  1.1 quart; 4 quarts  $\approx$  1 gallon)
- a. 12
  - b. 16
  - c. 40
  - d. 48

56. One hundred fifty centimeters is approximately equal to \_\_\_\_\_. (2.54 cm  $\approx$  1 inch; 12 inches = 1 foot)

- a. 6 inches
- b. 60 feet
- c. Just over 30 inches
- d. Nearly 5 feet

57. If a man is 1.75 meters tall, what is his approximate height in feet?

- a. 5
- b.  $5\frac{3}{4}$
- c. 6
- d.  $6\frac{1}{4}$

58. The approximate equivalent of 100 grams in pounds is:

- a. 22
- b. 2.2
- c. 0.22
- d. 0.45

59. Two millimeters is equal to:

- a. 20 centimeters
- b.  $\frac{2}{10}$  of a centimeter
- c.  $\frac{2}{100}$  of a meter
- d.  $\frac{2}{100}$  of a kilometer

60. Ten milliliters (mL) is equal to:

- a.  $\frac{1}{1000}$  of a deciliter (dL)
- b.  $\frac{1}{1000}$  of a kiloliter (kL)
- c.  $\frac{1}{1000}$  of a liter (L)
- d.  $\frac{1}{100}$  of a liter (L)

61. The sum of two numbers is 1 and their difference is  $\frac{1}{2}$ . What is their product?

- a.  $\frac{3}{2}$
- b.  $\frac{3}{4}$
- c.  $\frac{3}{8}$
- d.  $\frac{3}{16}$

62. The teeth of two circular gears interlock when they turn. Gear A has 30 teeth and gear B has 16 teeth. How many complete revolutions will Gear A have already made by the time Gear B makes 10 complete revolutions?
- 5
  - 10
  - 15
  - 30
63. If the perimeter of a rectangle is 12 times the width of the rectangle, then the length of the rectangle is how many times the width?
- 2
  - 4
  - 5
  - 6
64. In an octagon, what is the sum of the eight angles divided by the average of the eight angles?
- 4
  - 5
  - 6
  - 8
65. There are 120 yellow balls and 80 black balls in a bag that currently contains 200 balls. If only black balls are to be added to the bag so that the probability of randomly drawing a black ball from the bag becomes  $\frac{3}{5}$ , how many black balls must be added to the bag?
- 40
  - 80
  - 100
  - 120
66. In the repeating decimal  $0.\overline{1234} = 0.12341234\dots$ , where the digits 1,2,3,4 repeat, which digit is in the 8000th place to the right of the decimal point?
- 1
  - 2
  - 3
  - 4

67. Alan runs at the rate of 7,040 feet in 10 minutes. What is his speed in miles per hour (mph)? (5,280 feet = 1 mile)
- 2 mph
  - 4 mph
  - 6 mph
  - 8 mph
68. A box contains 5.25 pounds of chocolate chip cookies. If each cookie weighs 1.75 ounces, how many cookies are there in the box? (16 oz = 1 lb)
- 1 dozen
  - 2 dozen
  - 3 dozen
  - 4 dozen
69. On a bar graph, the scale is 1 box = 500 people. The number of boxes needed to represent 1,750 people is:
- $2\frac{1}{2}$
  - 3
  - $3\frac{1}{2}$
  - 4
70. On a bar graph, it is necessary to represent the following: 100, 500, 800, 900, 1500, 1800. The best scale to use is 1 box = \_\_\_\_\_.
- 10
  - 200
  - 1,000
  - 2,000
71. On a line graph, three intervals represent the number 600. The scale on this graph is 1 interval = \_\_\_\_\_.
- 125
  - 200
  - 250
  - 300
72. In how many ways can you arrange 5 different objects in a single line?
- 25
  - 50
  - 120
  - 125

73. Using the digits 1, 2, 3, 4, how many different four-digit numbers can be formed if repetition is allowed?
- a. 24
  - b. 96
  - c. 256
  - d. 4!
74. How many straight lines can be formed by connecting any 2 of 8 non-collinear points?
- a. 16
  - b. 28
  - c. 56
  - d. 160
75. How many triangles can be formed from the vertices of a regular pentagon?
- a. 10
  - b. 15
  - c. 20
  - d. 30
76. Each of four vases contains 20 flowers. Some flowers are to be removed from one vase and placed in another vase to make the ratio of flowers in the four vases 1:2:3:4. What is the least number of flowers that need to be moved to accomplish this?
- a. 8
  - b. 12
  - c. 16
  - d. 24
77. There are 12 red marbles and 6 blue marbles in a bag. If only blue marbles are added, how many blue marbles must be added so that the probability of randomly drawing a red marble becomes  $\frac{1}{4}$ ?
- a. 8
  - b. 14
  - c. 22
  - d. 30

78. Leila has 30 meters of fencing to create a rectangular vegetable garden. If the width of the garden will be 3 meters, what is the maximum length she can create for the garden?
- a. 8 meters
  - b. 9 meters
  - c. 10 meters
  - d. 12 meters
79. A bakery needs 2 cups of flour for every batch of cookies. If they have 20 cups of flour on hand and use enough flour for 6 batches, how many more cups of flour will they have left over?
- a. 4 cups
  - b. 8 cups
  - c. 12 cups
  - d. 16 cups
80. A rectangular garden has a width of 8 meters and a length that is 4 meters less than twice the width. What is the perimeter of the garden in meters?
- a. 24 m
  - b. 40 m
  - c. 56 m
  - d. 64 m

ANSWER KEY - SET B

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|-------|-------|-------|
| 1. B  | 28. C | 55. C |
| 2. A  | 29. D | 56. D |
| 3. D  | 30. B | 57. B |
| 4. D  | 31. A | 58. C |
| 5. B  | 32. B | 59. B |
| 6. D  | 33. A | 60. D |
| 7. A  | 34. D | 61. D |
| 8. D  | 35. B | 62. A |
| 9. B  | 36. B | 63. C |
| 10. B | 37. C | 64. D |
| 11. B | 38. D | 65. C |
| 12. B | 39. C | 66. D |
| 13. A | 40. D | 67. D |
| 14. B | 41. A | 68. D |
| 15. C | 42. D | 69. C |
| 16. A | 43. C | 70. B |
| 17. B | 44. D | 71. B |
| 18. B | 45. D | 72. C |
| 19. B | 46. C | 73. C |
| 20. D | 47. A | 74. B |
| 21. C | 48. C | 75. A |
| 22. D | 49. B | 76. C |
| 23. D | 50. B | 77. D |
| 24. D | 51. D | 78. D |
| 25. A | 52. C | 79. B |
| 26. D | 53. C | 80. B |
| 27. D | 54. C |       |