MathMatters Contest
Beehive Science and Technology Academy

5th Grade
SAMPLE TEST BOOKLET

Instructions:

1) Do not open this test booklet until instructed to do so.
2) You will have 40 minutes to answer 30 questions. Each question is multiple choice with answer selections of A, B, C and D.
3) All answers must be marked by filling in the circles on the **answer sheet**. Be sure to fill in each circle completely. **No answers written in the test booklet will be counted.**
4) Each problem is worth 1 point, except for the last 5, which are 2 points each. Unanswered questions get no credit. There is no penalty for wrong answers. Don't spend too much time on any question.
5) Remember that this is a competition, not a test. There is no failing or passing score. Just fo your best.
6) Use the provided space below each question for your calculations. You may use any space in the exam booklet as scratch paper. You may take this exam booklet with you after the test.
7) Calculators are **not** allowed.

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1) $20 \times 23 = 20 \times 24 - \_?\_$

A) 20 B) 22 C) 23 D) 24

2) Every time Bobby blows 5 bubbles, 4 of them pop in his face. How many bubbles pop in his face if he blows 20 bubbles?

A) 12 B) 16 C) 19 D) 25

3) How many hours are there in the merry month of May?

A) 360 B) 372 C) 720 D) 744

4) $3036 + 2024 + 1012 = 4048 + \_?\_$

A) 0 B) 1012 C) 2024 D) 3036

5) Which of the following numbers has the largest remainder when divided by 6?

A) 44 B) 55 C) 66 D) 77

6) The sum of all the factors of 49 is

A) 49 B) 50 C) 56 D) 57

7) Gomer has 5 piles of identical gloves. If there are a dozen gloves in each pile, how many pairs of gloves does he have all together?

A) 30 B) 40 C) 60 D) 120

8) (50 + 50) – (10 + 10) =

A) 2×(50 – 10) B) 2×(50 + 10) C) 4×(40 – 10) D) 4×(50 + 10)

9) If the product of two whole numbers is 36, which of the following numbers could be their sum?

A) 13 B) 14 C) 16 D) 19

10) 100×300 + 300×400 = 600× ?

A) 500 B) 300 C) 250 D) 200

11) If Sarah walks at a pace of 4 km per hour, how many minutes will it take her to walk 3 km?

A) 30 B) 45 C) 75 D) 80

12) Which of the following could be the sum of three consecutive odd numbers?

A) 47 B) 49 C) 51 D) 53

13) There are 10 boxes of apples, with each box containing 24 apples. If one of every three apples is removed from each box, how many apples will remain altogether?

A) 160 B) 140 C) 120 D) 80

14) If the letters of the words MATH LEAGUE are randomly rearranged, what is the probability that the first letter will be a vowel?

A) 25% B) 37.5% C) 40% D) 50%

15) $20 \times (23 + 24 + 25) = 24 \times \underline{\ ?\ }$

A) 60 B) 62 C) 64 D) 72

16) Ann, Beth, and Carl all watched a movie last Sunday. If Ann watches one every 4 days, Beth one every 5 days, and Carl one every 6 days, when will they next watch a movie again on the same day?

A) Monday B) Thursday C) Friday D) Saturday

17) The smallest prime number that is the sum of 4 different primes is

A) 11 B) 17 C) 19 D) 23

18) If I have 30 small snowballs and use ten of them to make two large snowballs, how many snowballs of all sizes do I now have?

A) 18 B) 20 C) 22 D) 24

19) There are twenty children at the playground. They all enjoy either running or skipping, and some enjoy both. If 18 enjoy running and 16 enjoy skipping, how many enjoy both activities?

A) 8 B) 10 C) 12 D) 14

20) A square is divided into 8 congruent rectangles, as shown. In all, there are ? different sizes of rectangles in the figure.

A) 6 B) 7 C) 8 D) 10

21) If I cut a square into 2 identical pieces, neither piece can ever be a

A) square B) triangle C) rectangle D) trapezoid

22) You paid 80¢ for 2 cookies. I bought 10 cookies for $3.00. How much more did you pay for each cookie than I paid for each cookie?

A) $0.05 B) $0.10 C) $0.20 D) $0.40

23) There were 25 red marbles and 15 blue marbles in a bag. Lisa randomly took 10 marbles from the bag and Ben took the rest. Which of the following statements is always true?

A) Ben took more red marbles than Lisa took.

B) Lisa took at least one red marble.

C) Lisa took more marbles than the number of blue marbles Ben took.

D) Ben took more blue marbles than Lisa took.

24) How many three-digit whole numbers are multiples of 6 but not of 4?

A) 74 B) 75 C) 149 D) 150

25) The last 2 digits of a 3-digit number are 2 and 6. What could the hundreds digit be if the number is divisible by 6?

A) 2 B) 4 C) 6 D) 8

26) Joe counts by 2s: 2, 4, 6, . . . , stopping at 102. Keira counts by 3s: 3, 6, 9, . . . , stopping at 102. How many of Joe's numbers match Keira's?

A) 17 B) 18 C) 34 D) 36

27) Abe read a 62-page book. He read 2 pages on the first day. On each following day, Abe read twice as many pages as he had read the day before until he finished the book. How many days did it take Abe to read the whole book?

A) 4 B) 5 C) 6 D) 7

28) How many integers greater than 9 and less than 100 have 3-digit squares?

A) 32 B) 31 C) 22 D) 21

29) Sharon has equal numbers of pennies, nickels, and dimes. Their total value is a whole number of dollars. What is the least amount of money that Sharon could have?

A) $1.00 B) $2.00 C) $4.00 D) $8.00

30) Pearl creates three two-digit numbers using the digits 1, 2, 3, 4, 5, and 6 exactly once each. The three numbers add up to 102. Which of the following cannot be one of the three two-digit numbers?

A) 32 B) 34 C) 41 D) 43