



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 do 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) Pat has 10 pennies and 10 nickels. The value of these coins is ?
A) 20¢ B) 50¢ C) 60¢ D) \$1.10
- 2) A string of length 48 units is cut into 12 pieces of equal length. What is the sum of the lengths of the pieces?
A) 12 B) 4 C) 48 D) 144
- 3) $2025 = 4 \times \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$
A) $56 + 1$ B) $506 + 1$ C) $500 + 3$ D) $480 + 2$
- 4) What is the average of 7, 8, 9, 10, 11, 12, and 13?
A) 7 B) 10 C) 17 D) 70
- 5) The number of sides of a heptagon multiplied by the number of vertices of a heptagon equals
A) 49 B) 25 C) 64 D) 36
- 6) How many of the whole numbers from 1 to 100 are divisible by 6?
A) 18 B) 19 C) 17 D) 16
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- 7) The Speedo Car Co. charges \$9,500 for a car, but gives an \$850 rebate. (A rebate is a return of money to the buyer.) What is the real cost of the car after the rebate but before taxes?
A) \$8,560 B) \$7,650 C) \$8,650 D) \$10,350
- 8) Jack was supposed to meet Jill at 3:37 p.m. If Jill arrived 20 minutes early, then Jill arrived at
A) 3:07 p.m. B) 3:57 p.m. C) 3:27 p.m. D) 3:17 p.m.
- 9) $(67 + 67 + 67 + 67 + 67) + (76 + 76 + 76 + 76 + 76) =$
A) 715 B) 572 C) 517 D) 752
- 10) What is the ten's digit of 225×522 ?
A) 1 B) 4 C) 7 D) 5
- 11) I earn \$15 an hour. If I work 8 hours a day for 4 days, what is the total amount of money I earn?
A) 68 B) 124 C) 480 D) 27
- 12) $12 \div 5 + 13 \div 2 + 7 \times 8 = ?$
A) $\frac{214}{130}$ B) $\frac{649}{10}$ C) $\frac{81}{8}$ D) $\frac{145}{10}$

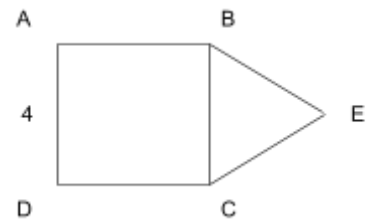
- 13) A movie projector works by showing 32 different “frames” every second. What is the number of “frames” in a one hour movie?
A) 3600 B) 32×60 C) 32×360 D) 32×3600
- 14) The product of two consecutive whole numbers is 42. What is the sum of these two consecutive numbers?
A) 23 B) 17 C) 43 D) 13
- 15) If **YOURS** plus **MINE** is equal to **YOURS** minus **MINE**, what does **MINE** equal?
A) 0 B) 1 C) 2 D) 10
- 16) Mickey is twice as old as Donald, and Donald is twice as old as Huey. If Huey is 12 years old, how old is Mickey?
A) 3 B) 6 C) 24 D) 48
- 17) When I divided a certain number by 8, the quotient was 253 and the remainder was 1. What was the original number?
A) 2032 B) 2025 C) 2277 D) 261
- 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) As shown, square ABCD has side-length 4, and BEC is an equilateral triangle. The sum of the perimeter of figure ABECD is

A) 16 B) 20 C) 24 D) 28



- 21) The perimeter of a rectangle is 36 units. The width of this rectangle is 4 units. What is the length of this rectangle?

A) 18 B) 16 C) 14 D) 10

- 22) If I start with 150 dollars, increase this by 40%, then decrease the new amount by 20%, how much money will I have?

A) 108 B) 170 C) 168 D) 42

- 23) If $2 + 4 + 6 + \dots + 196 + 198 + 200 = 10,100$,
what is the value of $1 + 2 + 3 + \dots + 98 + 99 + 100$?

A) 1000 B) 5000 C) 5050 D) 10,000

- 24) Bubble gum comes in packs of 5 pieces of gum. Robin wants to buy gum for herself and 7 of her friends so that each person can have at least two pieces of bubble gum. To do this, what is the least number of packs Robin must buy?
- A) 2 B) 3 C) 4 D) 5
- 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) The hundred's digit of the product $5 \times 5 \times 5 \times 5 \times 5 \times 5 \times 5 \times 5$ is
- A) 6 B) 5 C) 0 D) 3
- 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 three-digit whole numbers are multiples of 6 but not of 4?
- A) 74 B) 75 C) 149 D) 150

- 29) In how many different ways can the letters in the word STOP be arranged?
(Note: Three of the possible arrangements are TOPS, TSPO, and STOP. The arrangements do not need to create a word.)

A) 4 B) 6 C) 12 D) 24

- 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 156. Which of the following cannot be one of the three two-digit numbers?

A) 61 B) 52 C) 43 D) 36