



MathMatters Contest

Beehive Science and Technology Academy

6th 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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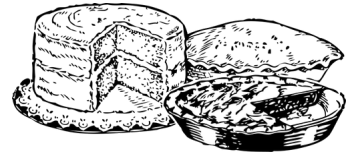
- 1) $1 + 2 \times 3 + 4 \times 5 =$
A) 15 B) 27 C) 29 D) 65
- 2) $2025 + 2026 = 2001 + 2002 + \underline{\hspace{2cm}}?$
A) 4 B) 48 C) 51 D) 2
- 3) If 50% of a number is 20, what is 20% of the same number?
A) 2 B) 4 C) 8 D) 10
- 4) At most, how many obtuse angles can a triangle have?
A) 0 B) 1 C) 2 D) 3
- 5) What is the greatest common factor of 49 and 50?
A) 2450 B) 7 & 10 C) 1 D) There is no greatest common factor
- 6) What is the average of 2010, 2011, 2019, 2020, 2025, and 2026?
A) 2016 B) 2018.5 C) 2018 D) 2019.5

7) My broken watch runs twice as fast as it should. If my watch first broke at 6:15 P.M., what time was displayed on my watch 65 minutes later?

- A) 7:45 P.M. B) 7:20 P.M. C) 8:25 P.M. D) 8:35 P.M.

8) If 1 slice of pie costs \$5 and a whole pie costs \$2 more than 3 times the cost of 1 slice, a whole pie costs _____.

- A) \$7 B) \$13 C) \$17 D) \$21



9) $20 + 40 + 60 + 80 + 100 + 120 + 140 = 20 \times \underline{\hspace{2cm}}?$

- A) 10 B) 15 C) 21 D) 28

10) Which of the following *cannot* be written as a product of two consecutive whole numbers?

- A) 6 B) 42 C) 99 D) 132

11) Which of the following could be the perimeter of an equilateral triangle?

- A) 2000 B) 2012 C) 2019 D) 2026

12) Jack has 3 pennies, 4 nickels, 5 dimes, and 6 quarters. Jack *cannot* make _____ using any number of his coins.

- A) \$0.99 B) \$1.20 C) \$1.31 D) \$1.42

13) Ike likes a number only if the sum of its digits is 9. How many whole numbers between 10 and 100 does Ike like?

- A) 6 B) 7 C) 8 D) 9

14) How many two-digit numbers are prime and have a one's digit of 1?

- A) 5 B) 6 C) 7 D) 8

15) What is the time 2000 hours after 2:00 a.m.?

- A) 3:00 AM B) 5:00 AM C) 10:00 AM D) 12:00 AM

16) I have read exactly $\frac{1}{3}$ of the total number of chapters in my 120-page book. If each chapter has the same whole number of pages, then the total number of chapters I have *left* could be _____.

- A) 16 B) 24 C) 32 D) 50



17) Last year I spent \$180 for 80 pairs of shades. This year I spent \$180 for 5 fewer pairs of the same shades. How much did the price per pair increase since I bought them last year?

- A) \$0.96 B) \$0.72 C) \$0.15 D) \$1.20

18) A team of three will be chosen from six baseball players. How many different teams are possible?

- A) 12 B) 24 C) 20 D) 40

19) Of the following, which could be the perimeter of a rectangle whose side-lengths, in cm, are prime numbers?

- A) 34 cm B) 22 cm C) 10 cm D) 58 cm

20) Each day for a month, Sully wakes up 5 minutes earlier than he did the day before. If Sully woke up at 6:50 a.m. on a Monday, on what day did he wake up at 6:20 a.m.?

- A) Sunday B) Monday C) Tuesday D) Wednesday

21) My team had to win a certain number of games to make it to the finals, and we won every 6th game we played. If my team qualified for the finals after our 96th game, how many wins did we need?

- A) 12 B) 16 C) 18 D) 90

22) Tex spent $\frac{1}{3}$ of Saturday writing. Then he spent $\frac{3}{8}$ of Saturday reading. If he spent the rest of Saturday sleeping, he slept for _____ hours.

- A) 7 B) 8 C) 9 D) 10

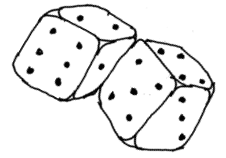
23) Starting at 1:00 PM, a ball was rolled in each of two lanes. A ball was rolled once every 15 seconds in one lane and once every 18 seconds in the other. By 1:44 PM, how many times had balls been rolled at the same time in both lanes?

A) 29

B) 30

C) 40

D) 44



24) Twenty months after Dr. Cyclops' birthday is February. What month is it twenty months before Dr. Cyclops' birthday?

A) February

B) March

C) September

D) October

25) $\sqrt{9} + \sqrt{81} = \sqrt{9 + 81 + ?}$

A) 0

B) 54

C) 90

D) 144

26) Ken rode his bicycle with Kurt and Liz last Sunday. Ken rides with Kurt on every 4th day and on no others. Ken rides with Liz on every 6th day and on no others. What is the first day after last Sunday on which Ken will ride with both Kurt and Liz?

A) Wednesday

B) Thursday

C) Friday

D) Saturday

27) My party truck carries only red, yellow, and green balloons. If 30% of the balloons are red, $\frac{2}{5}$ of the balloons are yellow, and 36 are green, how many balloons do I have?

A) 48

B) 120

C) 96

D) 72

28) My dog was 100 m from home, and my cat was 80 m from home. I called them, and they both ran directly home. If my dog ran twice as fast as my cat, how far from home was my cat when my dog reached home?

- A) 20 m B) 30 m C) 40 m D) 50 m

29) A train starts the day with 32 people on board. At each stop, half the people leave the train and 4 get on. How many people are on the train after it has left its second stop but before it makes its third stop?

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

30) In a list of 200 numbers, each number after the first number is 4 more than the number that comes before it. What is the difference between the first and last number on this list?

- A) 200 B) 796 C) 800 D) 804