Student Name _____

Hartsville Middle School
Rising 7th Grade Summer Math Work

OPTIONAL FOR HONORS AND ACADEMIC MATH CLASSES

DUE ON FRIDAY, JULY 31, 2026

You can find a link to make a copy of the summer math work on the HMS webpage.

Dear Student,

You now have the opportunity to earn extra credit for the first quarter in your math class and have your name entered to win outstanding prizes!

Anyone who completes the summer math assignment & turns it in by July 31, 2026 will

- **be entered in a drawing to win**
  - **a free yearbook!**
  - **a trip to Dave and Buster's!**
  - **a free ice cream once a week for the entire first semester!**

Math Work Requirements:

- Refer to your 6th grade math notebook or the internet for assistance but complete your **OWN** work.
- All sections should be completed **without** a calculator. Therefore, it is important to only use the calculator as a means to check over your answer, if used at all.
- Do not wait until the last minute to complete your assignment.
- **Write neatly and make sure all of your work is organized.**
- **Number your work according to how it is written in this packet.**
- **Show your work (step-by-step solutions), and circle or box-in your final answer.**

The Number System

1. You have $576 in your checking account. Your cell phone company deducts $32 each month from your account. If you do not put any more money into your account, how many months will it take for your account balance to be $0?

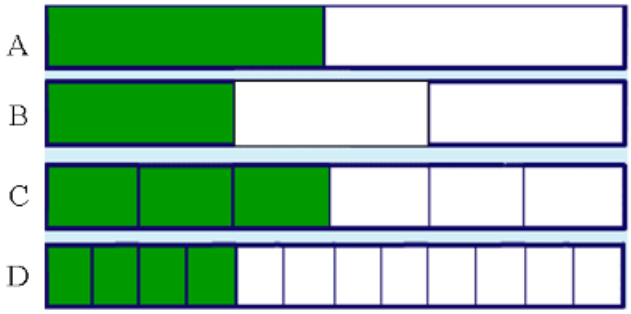
2. What is the sum of 14 and the opposite of 12?

3. 48 – (−12) =

4. On a number line, what is the distance between -12 and 20?

5. A volleyball uniform costs $15 for the shirt, $12 for shorts, and $8 for socks. How much will 10 uniforms cost?

6. Each row in the diagram below (A, B, C, D) represents a fraction. What fraction do you get when you subtract row D from row A?



7. What is the multiplicative inverse of $\frac{5}{6}$?

8. What is the reciprocal of $\frac{13}{4}$?

9. What is the quotient 10 ÷ (-5)?

10. During the first quarter of a game, a football team loses 108 yards in 12 plays. Calculate the average loss of yards per play?

11. Simplify. $50 \cdot \frac{1}{50}$

12. Yogi needs to cut 16 pieces of string for his kite project. Each piece needs to be 4 $\frac{3}{4}$ inches long. How much total string will Yogi use to complete his kite project?

13. What is $2\frac{1}{4} \cdot \frac{9}{5}$?

14. What is $\frac{7}{8} \div 2$?

15. Convert $\frac{35}{8}$ to a decimal using long division.

16. Express 3 as a fraction.

17. A new pizzeria offers mini-pizzas. Each mini-pizza is topped with $\frac{1}{4}$ cup of pizza sauce and $\frac{1}{3}$ cup of cheese. A package of shredded cheese contains 2 cups. If each mini-pizza is topped exactly with the same amount of cheese, how many mini-pizzas can be made from one package of shredded cheese?

18. A) Multiply. 8.52 x 6.7 B) Divide. 19.67 ÷ 5.62

19. Simplify the expression. $\frac{4+5}{3^2-2^2}$

20. Consider these values: $\frac{2}{5}$, 0.42, $\frac{1}{8}$, and 0.375
    a. Which of the given values is the greatest?
    b. Which of the given values is the least?

21. Consider the fraction $\frac{2}{5}$.
    a. What decimal is equivalent to the fraction $\frac{2}{5}$?
    b. What percent is equivalent to the fraction $\frac{2}{5}$?

22. What decimal is equivalent to 25%?

23. Change .00345 to a percent.

24. Timmy is on a 2,100 mile trip across the country. Over the last 12 hours of driving Timmy has traveled 720 miles. If he continues traveling at the same rate, how many more hours will it take him to complete his trip?

Ratios and Proportions

25. Winnie the Pooh goes to the honey store to buy a case of honey for the winter. The case of 24 jars of honey cost $27.60. What is the cost of each jar?

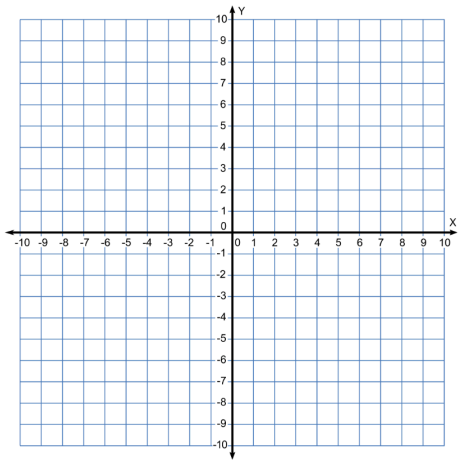
26. Carrie is buying bulk candy for a high school fundraiser. She buys 1000 candy bars for $350. What is the unit cost per candy bar?

27. Walking on a treadmill for 1 hour burns 120 calories.
    a. How many calories are burned per minute when walking on a treadmill?
    b. Assuming you walk at a constant rate and burn 120 calories per hour, how many minutes will it take to burn 75 calories?

28. Consider the following table. Which value completes the table?

x	y
0	6
3	9
6	
9	15
12	18

29. Use the table from #28. **Graph** the table of (x, y) coordinates. Does the table represent two quantities that are proportional to each other? (**Yes or No**) **Why or why not**?



30. A motorist traveled 250 miles on 11 gallons of gas. With the same vehicle, about how far could he go on 16 gallons of gas? Round to the nearest tenth.

31. Consider the ratio table.
    a. The ratio table shows the amounts of sand and water in a concrete mixture. What simplified fraction represents the ratio for the gallons of water to bags of sand?

    b. How many bags of sand should be mixed with 12 gallons of water?

Ratio Table

Bags of Sand	Gallons of Water
14	6
21	9
?	12
35	15

Expressions, Equations, and Inequalities

32. Simplify. (m + 11) + (n + 44)

33. Use the distributive property to write an expression equivalent to 5(x + 7)?

34. In the last basketball game of the season, Scott scored one point less than twice as many points as Mark and Thomas combined.
    a. Write an algebraic expression to represent the number of points Scott scored. Use M for Mark and T for Thomas.
    b. If Mark scored 6 points and Thomas scored 5 points, how many points did Scott score in the game?

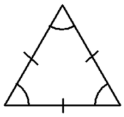
35. What value is equivalent to $8 \cdot 9 - 2 \cdot 5$?

36. Simplify these expressions.
    a. 15.05 + (6.25 − 3.75) x 2.05
    b. 13.95 ÷ 5 x (8.34 − 6.09)

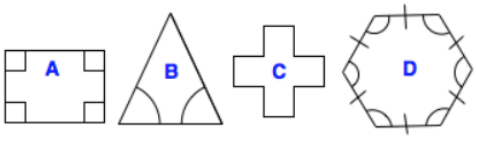
37. Consider the numerical expression: 3 + 6 × (5 + 4) ÷ 3 – 7
    a. To evaluate the numerical expression, what is the first step in the order of operations?
    b. Evaluate the given numerical expression.

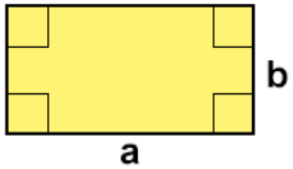
Geometry and Measurement

38. A problem on a Geometry quiz says to "Sketch a scalene triangle." The solution shown (refer to the picture below) is marked wrong. Why?



39. A problem on a Geometry test asks students to sketch a regular polygon. Which choice could be a solution for this problem?





40. The sketch shown is a solution for which problem? Is it:

a. Sketch a quadrilateral that is not equiangular nor equilateral.
b. Sketch a rhombus.
c. Sketch a parallelogram.
d. Sketch a square.