# Summer Math Calendar for Students Entering 7th Grade - July

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| **1.** Let's factor!<br><br>Find the factors of 60:<br><br>Find the factors of 45:<br><br>Name the GCF:<br>(greatest common factor) | **2.** Solve:<br><br>$\left(6\frac{1}{8} + \frac{2}{3}\right) - 3\frac{11}{12}$<br><br>Hint: Find common denominators | **3.** Fill in the missing number.<br><br>56.7 + 0.89 - ___ = 1.29<br><br>Write your answer in word form. | **4.** 545 is halfway between 350 and what number? | **5.** Use the order of operations to simplify:<br><br>$3^2 + 5 \cdot 8 \div 10$<br><br>$(6 * 3) + 32 \div 8 - 5 + 4^3$ | **6.** Find four fractions between<br><br>$\frac{1}{10}$ and $\frac{1}{8}$<br><br>Hint: Find common denominators and rename the fractions | **7.** If three pies require 2 dozen apples, then four pies require _____ dozen apples. |
| **8.** A jacket costs $75.00. It is on sale for 30% off. If you give the cashier $60.00, calculate the amount of money you should receive as change. | **9.** How many prime numbers are there between 0 and 75?<br><br>What about between 76 and 150? | **10.** What is 25% of 80?<br><br>What is 10% of 560?<br><br>8 is what percent of 12? | **11.** Square the following numbers:<br><br>10, 7, 13, 6, 9, 12 | **12.** Write the ratio of females to males in your household:<br><br>Write the ratio of humans to animals in your household:<br><br>Write the ratio of days of summer vacation to school days: | **13.** Find the area of a square with a perimeter measuring 120 cm. | **14.** Divide:<br><br>$\frac{3}{4} \div \frac{1}{2} =$<br><br>$0.75 \div 0.5 =$<br><br>What did you notice? |
| **15.** Evaluate the algebraic expressions if $x = 5.6$ and $y = 9.3$<br><br>$3x + 4y$<br><br>$5y - 4x$ | **16.** Express the fraction $\frac{3}{4}$ and $\frac{17}{20}$ as a decimal and as a percent. | **17.** Find the products:<br><br>$\frac{1}{3} \times 21 =$<br><br>$2\frac{1}{4} \times 4 =$ | **18.** Find the possible dimensions of a rectangle with an area measuring 120 sq cm. Are there other possible dimensions? | **19.** Distribute:<br><br>$2(x + y)$<br><br>$7(9 - c)$ | **20.** Place parentheses in the following equation to make it true.<br><br>$6 + 6 \div 6 \times 6 - 6 = 0$ | **21.** Look up the temperature for the last 7 days. What is the maximum? The minimum? The range? The mean? Is there a mode? |
| **22.** If you pull eight coins from your pocket, and none of them are pennies, what is the most money that you could have? The least? | **23.** Play a math thinking game like:<br>**Yahtzee**<br>**Mastermind**<br>**Monopoly**<br>**Life**<br>**Tenzi**<br>**Battleship**<br>**Dominoes**<br>**Guess My Number** | **24.** Find the surface area of the rectangular prism:<br><br>2 cm<br>6 cm<br>3 cm<br>3 cm | **25.** Find the area:<br><br>21 cm, 32 cm, 13 cm, 46 cm | **26.** Robert's recipe has 5 onions & 9 tomatoes for the pizza. Jeff's recipe has 8 onions & 10 tomatoes for the pizza. Whose recipe has a lower ratio of onions to tomatoes? Explain. | **27.** Find the volume of the rectangular prism:<br><br>6 in<br>4 in<br>4 in | **28.** The local coffee shop charges $30 for an hour of internet service. How much is that per minute? How much would it cost to use for 90 minutes? |
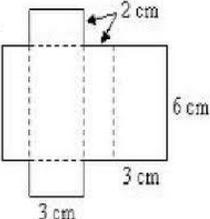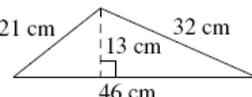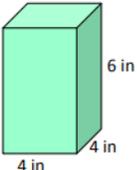
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# Summer Math Calendar for Students Entering 7th Grade - August

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| 1. What is the opposite of: <br> -3 <br><br> 15 <br><br> A decrease of 6 degrees <br><br> A gain of $600 | 2. Perform the operations: <br><br> $\frac{1}{2} + \frac{5}{8} =$ <br><br> $1\frac{1}{2} - \frac{5}{8} =$ <br><br> $\frac{1}{2} \times \frac{5}{8} =$ | 3. If the area of a rectangle equals 30 cm² and the perimeter is equal to 26 cm, what is the length and width of the rectangle? | 4. What is the value of n in the inequality below? <br><br> $\frac{3}{5} < \frac{n}{7} < \frac{4}{5}$ | 5. Solve the equations: <br> $a + 38 = 102$ <br><br><br> $b - 38 = 95$ | 6. Find two numbers that have 2, 5, and 7 as factors. | 7. What is the area of a trapezoid with bases of 3 in. and 8 in. and a height of 3 in.? |
| 8. At the store, or online, find 2 boxes or cans of similar food items and write down their size and price. At home, find the unit rate and determine which is a better buy. | 9. Find the area and perimeter of a rectangle with length measuring 14 cm and width measuring 5 more than twice the length. | 10. Solve the equations: <br><br> $3b = 102$ <br><br><br> $\frac{b}{21} = 8$ | 10. Are these ratios equivalent? <br> 9 pencils to 50 erasers <br> 7 pencils to 49 erasers <br> If not, how many would you add or take away from one to make them the same? | 12. Combine like terms to simplify: <br><br> $m + m + m + m + m$ <br><br><br> $x + x + y + z + y$ | 13. Perform the operations: <br><br> $\frac{3}{5} - \frac{3}{10} =$ <br> $\frac{1}{2} \times 5 =$ <br> $2 \div \frac{1}{2} =$ | 14. Simplify using order of operations: <br><br> $72 \div 3 - 5(2.8) + 9$ <br><br> $3 * 14(10 - 8) - 60$ |
| 15. Without parentheses the expression $8 + 30 \div 2 + 4$ equals 27. Place parentheses in the expression so it equals 13, then 23. | 16. GCF (17, 34) = <br><br> GCF (45, 60) = <br><br> LCM (12, 15) = <br><br> LCM (17, 34) = | 17. Susan has a weight of 87.5 pounds. Adam is 4.3 pounds heavier than Susan, and James is 2.9 pounds lighter than Susan. What are the weights of Adam and James? | 18. Find each quotient: <br><br> $0.4 \div 0.02 =$ <br><br> $0.09 \overline{)0.108}$ | 19. It costs $12 to attend a golf clinic with a local pro. Buckets of balls for practice during the clinic cost $3 each. How many buckets can you buy if you have $30 to spend? | 20. Find the products: <br><br> $\frac{2}{3} \times \frac{3}{4} =$ <br><br><br> $\frac{3}{5} \times \frac{3}{10} =$ | 21. Distribute: <br><br> $2(x + y)$ <br><br><br> $7(9 - c)$ |
| 22. Solve the equation: <br><br> $c + 54 = 281$ <br><br><br> $6c = 102$ | 23. Perform the operations: <br> $25.03 + 61.9 =$ <br><br> $85 - 48.25 =$ <br><br> 9 x 3.78 = <br><br> $9 \div 2.5 =$ | 24. The perimeter of a rectangle is 72 m. The width of the rectangle is 16 m. What is the area of the rectangle? | 25. The sum of three decimal amounts is 450.63. What is the third decimal amount, if two of them are 126.53 and 95.54? | 26. You're heading to the beach. If the car travels at a constant speed of 60 mph and it takes 2.5 hours to get there, how far away is the beach? <br><br> How long will it take you if the car travels at 50 mph? | 27. Distribute: <br><br> $3(8a + 9b)$ <br><br><br> ½ $(10x + 20y)$ | 28. Play a math thinking game like: <br> **Yahtzee** <br> **Mastermind** <br> **Monopoly** <br> **Life** <br> **Tenzi** <br> **Battleship** <br> **Dominoes** <br> **Guess My Number** |

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