Sunset Middle School
Summer Math Packet

Dear Rising 8th Grade Students and Families,

We are excited to welcome you to 8th grade at Sunset Middle School for the 2026–2027 school year!

Attached you will find the Summer Math Packet. The skills included in this packet are important foundational concepts that will support your student's success in 8th grade math.

The packet is designed to be completed over the course of the summer. We encourage students to complete approximately one page per week to build fluency and maintain their math skills in a steady and manageable way.

Parents, we invite you to support your student by checking in on their progress and signing each section once it has been completed. If your student falls behind at any point, please don't be discouraged—simply pick up where they left off and keep going. Consistent effort over time makes a big difference.

All work should be completed without a calculator so that students can strengthen their number sense and problem-solving skills.

We look forward to beginning this new school year with you and can't wait to see the growth and confidence students build over the summer!

Mrs. DeHart

Math/Science Instructional Coach

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SMS Summer Math Packet

Complete week . 1
Parent Signature: _____
Date: _____

1. Rename 84% as a decimal and as a fraction in simplest form.	2. Rename 28% as a fraction in simplest form and as a decimal.	3. Rename 2.15 as a fraction in simplest form and as a percent.	4. Rename $\frac{32}{100}$ as a fraction in simplest form, as a decimal and as a percent.
5. Simplify: $5\frac{3}{5}-3\frac{1}{4}$	6. Simplify: $10\frac{1}{2}-2\frac{3}{4}$	7. Multiply and simplify: $\frac{5}{6}\times\frac{3}{8}$	8. Multiply and simplify: $2\frac{3}{8}\times\frac{1}{2}$
9. What is 10% of 670?	10. What is 25% of 1,000?	11. Divide: $16.30 \div 5$	12. Multiply: 5.82×0.25
13. What is 20% of 140?	14. What is 15% of 60?	15. Evaluate the expression: $(4+4)\cdot 4-4\div 4^2$	16. Evaluate the expression: $0.25(200-72)+22.9$

SMS Summer Math Packet

Complete week 2
Parent Signature: _____
Date: _____

1. Simplify: $6\frac{2}{5} - 4\frac{1}{4}$	2. Simplify: $18\frac{1}{2} - (-4\frac{3}{4})$	3. Multiply and simplify: $\frac{3}{7} \cdot \frac{-3}{6}$	4. Multiply and simplify: $\frac{-1}{12} \cdot \frac{-6}{14}$
5. What is 12% of 340?	6. What is 25% of 650?	7. Divide: 19.30 ÷ 4.2	8. Multiply: 5.94 × 3.25
9. What is 20% of 87?	10. What is 127% of 60?	11. Evaluate the expression: $(4+4)\cdot 4 - 4 + 4$	12. Evaluate the expression: $0.35(20-94) + 38.9$
13. Rename 332% as a fraction in simplest form and as a decimal.	14. Rename $\frac{9}{7}$ as a decimal and a percent (to the nearest tenth if necessary).	15. Rename .62 as a fraction in simplest form and as a percent.	16. Rename 4.55 as a fraction in simplest form and as a percent.

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Complete week 3
Parent Signature: _____
Date: _____

1. Multiply: $3\frac{7}{30} \cdot \frac{9}{20}$	2. Evaluate $4\frac{7}{12} + 9\frac{57}{100}$	3. Evaluate: $27\frac{15}{50} - 19\frac{7}{15}$	4. Divide: $\frac{4}{9} \div \frac{2}{5}$
5. What is 80% of 205?	6. What Is 85% of 20?	7. Evaluate the expression: $8 - 8(8+8) + 8 \div 8 + 8$	8. Evaluate the expression: $1.45(150 - 80) - (-12)$
9. Rename 45% as a fraction in simplest form and as a decimal.	10. Rename $\frac{3}{16}$ as a decimal and a percent (to the nearest tenth if necessary).	11. Rename .065 as a fraction in simplest form and as a percent.	12. Rename 1.85 as a fraction in simplest form and as a percent.
13. List the numbers below from least to greatest. $\frac{50}{75}, \frac{24}{60}$, 0.408, 43%	14. What is the product: (34.76)(2.64)	15. Represent \$0.35 as a fraction of a dollar.	16. The Athletes competing in a triathlon race will bicycle 12.9 miles, swim 0.75 mile, and run 5.77 miles. What will be the total length of the race?

SMS Summer Math Packet

Complete week 4
Parent Signature: _____
Date: _____

1. Simplify: $48 - 3(2^2) + 1^3$	2. What is 20% of 60?	3. 22 is 40% of what number?	4. What percent of 63 is 34?
5. Simplify to Unit Rate: $\frac{72\ meters}{8\ seconds}$	6. Simplify to Unit Rate: $\frac{56\ feet}{7\ minute}$	7. Solve the proportion: $\frac{4}{9} = \frac{x}{39}$	8. Solve the proportion: $\frac{7}{3} = \frac{x}{55}$
9. What is the value of x in the equation below? $3(x + 2) \geq 18$	10. Evaluate: $(-9)^3$	11. Look at the list of numbers below: $30\%,\ \frac{1}{3},\ \lvert 3 \rvert,\ \frac{2}{5}$ List the numbers in order from least to greatest.	12. Look at the pattern below: -3, 15, -75, 375, ... If the pattern continues, what will the sixth term be?
13. Simplify the following algebraic expression. $-2(4x - 16) + 11x$	14. What is the value of y in the inequality below? $-12y + 6y - 10 \leq 14$	15. Look at the equation below: $-3(2x + 7) = 33$ What is the value of x in the equation?	16. Simplify the following algebraic expression. $6x + 11 - 3(7x - 8)$

SMS Summer Math Packet

Complete week: 5
Parent Signature: _____
Date: _____

1. $2.5 - 1.37 + (3.4 \times 1.2)$	2. Order from greatest to least: $45\%, \frac{3}{4}, \frac{1}{3}, 0.5$	3. What is 24% of 250?	4. What is 12% of 820?
5. Solve for x: $2x - 6 = 14$	6. Solve for f: $\frac{2f+3}{3} = 7$	7. Solve for x: $\frac{x}{4} - (-12) = 14$	8. What percent of 52 is 28?
9. Simplify: $3(2x-8) + (2)^2 \circ 4$	10. Simplify: $5 - 3(2x-8) + (2)^2 \circ 4$	11. Solve the proportion: $\frac{7}{9} = \frac{x}{72}$	12. Solve the proportion: $\frac{8}{3} = \frac{x}{65}$
13. Given the equation in slope-intercept form, what is the slope and the y-intercept? $y = 3x - 5$	14. Are the two ratios proportional? Prove it mathematically. $\frac{9}{4} = \frac{43}{34}$	15. Evaluate $\frac{9}{7} \quad \frac{12}{8}$	16. Simplify the expression: $23k - (-4k) + 13 - 7k - 16$

SMS Summer Math Packet

Complete week 10
Parent Signature: _____
Date: _____

1. What is the value of x in this equation? $\frac{2}{3}x = 24$	2. Simplify the expression shown below when c is equal to 2. $\frac{12c^4 + 18}{6}$	3. Solve for x: $8x - 3x + 10x = 75$	4. Simplify this expression. $5x - (3 - 12x)$
5. What is the value of m in this equation? $\frac{8}{11}m = 88$	6. Solve: $-8(-4 - 3x) = 2x$	7. Simplify the following expression: $(3 + 2)^2 - 4 \cdot 8$	8. What is the value of the expression below when f = - 7 and g = - 3? $5f - 8g$
9. Simplify this expression if x is equal to 2: $\frac{28x^4 - 49}{7}$	10. Simplify this expression: $3(9x - 5)$	11. Solve for x: $\frac{x}{6} = 20$	12. Simplify this expression: $7(2r + 3)$
13. Look at the inequality below: $-6a + 8a + 90 \leq 92$ What is the value of x in the inequality?	14. What is the value of m in the inequality below? $75 \leq \frac{m}{-5} + 10$	15. Evaluate: $(-4)^2$	16. Simplify the following expression. $(-12 - 3x) - (5x - 8)$

SMS Summer Math Packet

Complete week 7
Parent Signature: _____
Date: _____

1. Simplify the following algebraic expression. $-3(7x-14)+19x$	2. What is the value of y in the inequality below? $-18y+6y-10 \leq 26$	3. Look at the equation below: $-3(2x+5)=39$ What is the value of x in the equation?	4. Simplify the following algebraic expression. $8x+17-3(9x-6)$
5. What is the value of x in the equation below? $2(x-7) \geq 25$	6. Evaluate: $(-9)^3$	7. Look at the list of numbers below: $33\%, \frac{1}{3}, \lvert-.3\rvert, \frac{2}{5}$ List the numbers in order from least to greatest.	8. Look at the pattern below: -3, 15, -75, 375, ... If -3 is the third term, what's the first term based on this pattern?
9. Solve the proportion: $\frac{9}{7}=\frac{x}{42}$	10. Solve the equation for x: $3x+6=20$	11. Solve the equation for x: $7-6x=30$	12. Solve the equation for x: $\frac{x}{3}-12=-15$
13. Simplify to Unit Rate: $\frac{24\ meters}{14\ seconds}$	14. Simplify to Unit Rate: $\frac{81\ feet}{4\ minute}$	15. Give the decimal and the percent form of the fraction: $\frac{5}{8}$	16. Give the decimal and the percent form of the fraction: $\frac{4}{22}$

SMS Summer Math Packet

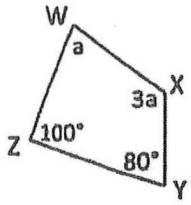
Complete week 8
Parent Signature: _____
Date: _____

1. Simplify: $1.5 \circ \frac{4}{3} + \frac{10}{6}$	2. Simplify: $4 \circ (\frac{10}{3} + \frac{7}{8})$	3. Simplify: $(0.75 + \frac{9}{4}) \div 0.5$	4. Simplify: $\frac{10}{6} - \frac{12}{8} \circ 0.25$
5. Look at the inequality below. $-2x + 13.2 - 2x \geq 34.64$ What value for x makes this inequality true?	6. Mr. A. Didas purchased 22 trophies for a total of $131.78. What is the cost per trophy?	7. Simplify: $-1736.98 \div (-5)^2$	8. Give the decimal and the percent form of the fraction: $\frac{44}{37}$
9. Solve the proportion: $\frac{9}{7} = \frac{x}{45}$	10. Solve the equation for x: $2x + 91 = 15$	11. Solve the equation for x: $8 - 4x = -40$	12. Solve the equation for x: $\frac{5x}{6} - 17 = -10$
13. Simplify $\frac{-45x^9}{5x^4}$	14. Simplify $(6xy^7)(7x^2y^3)$	15. Simplify: $(4w^5z^6)^2$	16. Simplify $\frac{8w^6v^4}{2w^8v^2}$

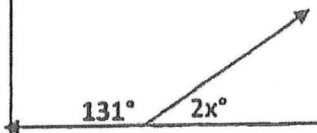
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Complete week 9
Parent Signature: _____
Date: _____

1.
Look at quadrilateral WXYZ. What are the missing angles?



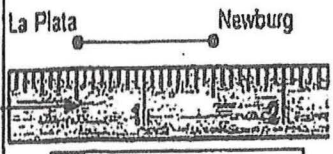
2. Look at the diagram below.



Note: Figure not drawn to scale

What is the value of x, in degrees?

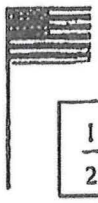
3. The figure below represents the distance between La Plata and Newburg.



Scale: ¼ in = 3.5 miles

What is the distance, in miles, between La Plata and Newburg?

4. What is the actual height of the flagpole?



$\frac{1}{2}$ in.:3 ft

5.
Mr. Nike purchased 29 trophies for a total of $211.78. What is the cost per trophy?

6.
Look at the expression below.

$$20 \div 4 \times 4 - 4 \div 2$$

What is the value of the expression?

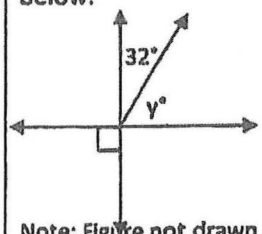
7. Simplify:
$-1716.81 \div (-5)^2$

8. Look at the inequality below.

$$-2x + 13.2 - 2x \geq 34.64$$

What value for x makes this inequality true?

9.
Look at the diagram below.



Note: Figure not drawn to scale

What is the value of y, in degrees?

10.
Look at the expression below.

$$(15.5 \div 3.1)(0.10)$$

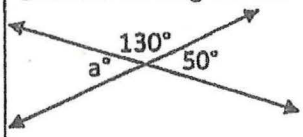
What is the value of the expression?

11.
Which of the following would be equivalent to: $(3^4)(3^2)$

A. 3^{16} B. 3^8
C. 3^6 D. 3^2

Simplify:
$-1716.81 \div (-5)^2$

12.
Look at the diagram below.



Note: Figure not drawn to scale

What is the value of a, in degrees?

13. Add in scientific notation.

$4.5 \times 10^4 + 3.2 \times 10^3$

14. Subtract in scientific notation.

$4.3 \times 10^4 - 3.2 \times 10^3$

15. Multiply in scientific notation.

$(4.6 \times 10^6)(3.21 \times 10^4)$

16. Divide in scientific notation.

$$\frac{4.86 \times 10^5}{2.43 \times 10^3}$$

SMS Summer Math Packet

Complete week 10 (Bonus)
Parent Signature: _____
Date: _____

1. Simplify: $\frac{1}{12} - \frac{3}{5}$	2. Simplify: $\frac{5+5}{4} - 5 \cdot (5+5)$	3. Simplify: $-12(2x-4) + 6k$	4. Find the area of a trapezoid with base 1 = 12in, base 2 = 8in, and height = 4 in
5. $\angle A$ and $\angle B$ are complementary. If $\angle A = 2x + 7$ and $\angle B = 67$, solve for x.	6. $\angle C$ and $\angle D$ are supplementary. If $\angle C = 103$ and $\angle D = 3x - 7$, solve for x.	7. $\angle A$ and $\angle B$ are complementary. If $\angle A$ measures 54 degrees what does $\angle B$ measure?	8. Tarzan grabs 80% of the vines he means to. How many of 64 vines would he grab on purpose?
9. Eric makes 8 of his 10 free throws during practice. Using this data how many will he make at the game if he shoots 12 free throws?	10. What is the probability of rolling three 4s in a row using one die?	11. Solve the inequality for x: $\frac{-3}{2}x - 14 < 0$	12. Solve the equation for x: $-16 - 4x > -4$
13. Find f(5) when $f(x) = -2x - 3$	14. Find f(-2) when $f(x) = -4x + 5$	15. Find f(-9) when $f(x) = 3 - 2x$	16. Find f(3) when $f(x) = -3x - 5$