

# SUMMER

# MATH

# ASSIGNMENT



INCOMING

9TH

GRADE

# CLASS OF 2027

Incoming 9TH GRADE CLASS for the school year 2023-24:

## **NO CALCULATORS!**

This packet of math problems will be due on the 2nd day of classes (August 17, 2023). Some of it is a review and there might be some new concepts included. Do your best!

You will get credit for work completed.

### KEEP IN MIND

You should attempt all problems in the packet to the best of your ability.

You are encouraged to spread the work out and do a little bit each week.

**Show your work for problems, if stated in the directions. You will NOT get full credit if you don't. NO EXCEPTIONS.**

Do NOT use any ink. PENCIL ONLY!

Use extra paper and staple it to the packet when needed.

Spend extra time reviewing sections you don't understand. Ask someone to help you understand difficult concepts.

Bring the completed packet to school the first day of classes - this is your first assignment of the new year. Additionally, some classes will have a quiz on the math packet.

*Mrs. Hoggatt*

**HOGGATTEER KNIGHTS** [www.hoggatteerknights.com](http://www.hoggatteerknights.com)

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Great is our Lord and mighty in power; his understanding has no limit. Ps. 147:5

*Use Order of Operations to evaluate the following.*

1.  $14 + 3 \cdot 8 =$

2.  $7 \cdot 5 + 6 \cdot 2 =$

3.  $3 \cdot 6 + 14 - 2 =$

4.  $18 + 24 - 12 + 5 =$

*Evaluate the expressions if  $j = 2$ ,  $k = 7$ , and  $m = 9$*

*Show Your Work!*

5.  $2m - 5j$

6.  $2j + k - m$

The following is a list of 10 recent U.S. Presidents, and their age when they were 1<sup>st</sup> elected.

Bush	54	Ford	61
Clinton	46	Nixon	55
Bush	64	Johnson	56
Reagan	69	Kennedy	43
Carter	52	Eisenhower	62

Show Your Work!

7. What is the mean age of these 10 Presidents?

8. What is the median age of these 10 Presidents?

9. What is the mode for the data above?

10. What is the range for the data above?

Choose the greatest number in each group.

11. a. 0.315      b. 0.0325      c. 0.3025      d. none

12. a. 0.799      b. 0.08      c. 0.8      d. none

13. a. 0.73      b. 0.07      c. 0.072      d. none

14. a. 0.980      b. 0.098      c. 0.0908      d. none

Add or Subtract.

Show Your Work!

15. $0.46 + 0.72$	16. $0.2154 - 0.1526$
17. $15.256 + 0.236$	18. $24.56 - 24.32$

*Multiply*

19. $8.54 \cdot 3.27$	20. $0.2 \cdot 0.079$
21. $16.8 \cdot 4.5$	22. $39.6 \cdot 2.417$

*Evaluate the following exponents*

23.  $0^{10}$

24.  $4^5$

25. 9 cubed

*Find each quotient to the nearest hundredths place.*

Show Your Work

26.  $47 \overline{)145.7}$

27.  $32 \overline{)231.68}$

28.  $0.74 \overline{)19.98}$

State whether each number is divisible by 2, 3, 4, 5, 6, 9, and/or 10. (List ALL that apply.)

29. 216

30. 135

31. 351

Find the prime factorization for each number using exponents.

Show Your Work

32. 192

33. 70

34. 108

Find the Greatest Common Factor (GCF) of each pair of numbers.

Show Your Work

35. 32, 36

36. 33, 55

37. 27, 45

Find the Least Common Multiple (LCM) of each pair of numbers.

Show Your Work

38. 18, 12

39. 16, 20

40. 6, 16

Convert the following decimals into fractions in simplified form.

41. 0.625

42. 0.2

43. 0.25

Convert the following fraction into decimals.

Show Your Work

44.  $\frac{4}{9}$

45.  $\frac{1}{8}$

46.  $\frac{1}{2}$

Add or Subtract. Simplify if needed

Show Your Work

47.  $5\frac{5}{8} + 7\frac{5}{12}$

48.  $12\frac{2}{3} - 5\frac{7}{9}$

$$49. 8\frac{1}{4} + 15\frac{1}{6}$$

$$50. 3\frac{1}{2} - 1\frac{3}{7}$$

*Multiply or divide the following fractions and mixed numbers. Simplify if needed.*

$$51. \frac{3}{7} * \frac{1}{4}$$

Show your  
Work

$$52. \frac{5}{16} * \frac{8}{15}$$

$$53. \frac{9}{50} \div 18$$

$$54. \frac{21}{40} \div \frac{7}{20}$$

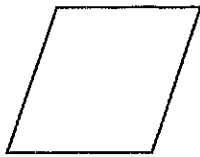


55.  $7\frac{1}{2} * 1\frac{3}{10}$

56.  $2\frac{1}{12} \div 1\frac{7}{8}$

*Classify the following polygons. Be as specific as possible.*

57.



- a. parallelogram
- c. trapezoid

- b. rectangle
- d. square

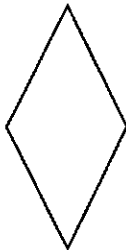
58.



- a. rectangle
- c. parallelogram

- b. trapezoid
- d. rhombus

59.



- a. trapezoid
- c. rectangle

- b. square
- d. rhombus

*Classify each angle whose measurement is given below as acute, obtuse or right.*

60.  $24^\circ$

61.  $138^\circ$

62.  $90^\circ$

69. Find the area of a circle with a radius of 9m.

Show  
Your  
Work

70. Find the volume of a rectangular prism that has the dimensions 7 m x 7m x 8m.

71. Find the total surface area of a box that has the dimensions 4cm x 5 cm x 6cm.

*Solve the following integer expressions*

72. $11 + (-6)$	73. $-8 - (-14)$
74. $2(-18)$	75. $110 + (-10)$

*Solve the following algebraic equations*

Show  
Your  
Work

76.  $3a = -48$

77.  $\frac{1}{5}k = -9$

Solve the following proportions for the variable.

63.  $\frac{d}{12} = \frac{6}{8}$

SHOW YOUR  
WORK

64.  $\frac{7}{35} = \frac{3}{k}$

65.  $\frac{8}{f} = \frac{15}{60}$

Calculate the following percents.

SHOW YOUR  
WORK

66. 34% of 30

67. 120% of 70

68. Find the area of a triangle that has a base of 3 ft. and a height of 12 ft.

$$78. g - 8 = 9$$

$$79. 4 + z = -5$$

$$80. 6u = 3$$

Show your  
Work

Fill in the multiplication table. Practice these over the summer- pop quizzes will be used throughout the year over these facts.

X	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1															
2															
3															
4															
5															
6															
7															
8															
9															
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