

Name: _____

Date: _____

7th Honors Math

2026-2027 Summer Math Packet

Dear Students,

Attached you will find your summer math packet. This packet is a way for you to keep your math skills sharp over the summer and ready for September.

- Please make sure to follow the directions and show ALL work! You will not receive credit if your work is not shown. An important part of math is being able to show the process of how you arrive at an answer.
- Be neat and organized! Use all the paper you need and hand it in with your packet. Be sure your papers are labeled.
- Please box your final answers.
- Don't rush and check your work!

I look forward to seeing you all in September. Have a great summer!!

Mrs. Davis

Summer Honors Math Packet

Name: _____

A. All problems in the packet are complete.

Points: 10 8 6 4 2

B. Detailed work process is shown for each problem(use extra paper if needed).

Points: 10 8 6 4 2

C. Work is neat and organized.

Points: 5 4 3 2 1

D. Summer packet is handed in on time(the first day of school). One point will be deducted for each day the assignment is late.

Points: 5 4 3 2 1

Total Points Possible: 30

Points Earned: _____

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Simplify to lowest terms.

1 $\frac{3}{18}$

2 $\frac{15}{25}$

3 $\frac{6}{8}$

4 $\frac{37}{37}$

5 $\frac{66}{99}$

6 $\frac{35}{42}$

7 $\frac{100}{1000}$

8 $\frac{50}{1000}$

9 $\frac{7}{341}$

10 $2\frac{6}{30}$

11 $\frac{36}{12}$

12 $4\frac{29}{29}$

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Adding and Subtracting Fractions

Solve: No Calculators! If needed, use the backside of this paper for additional workspace. **No work = no credit.**

Add or subtract as indicated. Reduce to lowest terms.

$$\boxed{1} \quad \frac{12}{17} + \frac{3}{17}$$

$$\boxed{2} \quad \frac{11}{12} + \frac{1}{12}$$

$$\boxed{3} \quad \frac{7}{10} + \frac{2}{10} + \frac{8}{10}$$

$$\boxed{4} \quad \frac{1}{2} + \frac{2}{3}$$

$$\boxed{5} \quad 2\frac{3}{5} + \frac{9}{10}$$

$$\boxed{6} \quad 5\frac{1}{4} + 3\frac{5}{8} + 2\frac{1}{2}$$

$$\boxed{7} \quad \frac{8}{11} - \frac{5}{11}$$

$$\boxed{8} \quad \frac{7}{16} - \frac{5}{16}$$

$$\boxed{9} \quad \frac{7}{9} - \frac{2}{3}$$

$$\boxed{10} \quad \frac{2}{3} - \frac{1}{6}$$

$$\boxed{11} \quad 1\frac{1}{2} - \frac{7}{10}$$

$$\boxed{12} \quad 2\frac{1}{2} - 1\frac{3}{4}$$

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Multiply and Divide Fractions

Solve: No Calculators! If needed, use the backside of this paper for additional workspace. **No work = no credit.**

Multiply. Reduce to lowest terms.

$$\boxed{1} \quad \frac{1}{2} \times \frac{3}{4}$$

$$\boxed{2} \quad \left(\frac{5}{9}\right)\left(\frac{3}{10}\right)$$

$$\boxed{3} \quad \frac{15}{4} \cdot \frac{12}{5}$$

$$\boxed{6} \quad \left(\frac{3}{5}\right)^2$$

$$\boxed{7} \quad 3\frac{7}{8} \cdot \frac{5}{6}$$

$$\boxed{8} \quad \left(2\frac{1}{2}\right)\left(3\frac{1}{5}\right)$$

Divide. Reduce to lowest terms.

$$\boxed{1} \quad \frac{1}{2} \div \frac{4}{5}$$

$$\boxed{2} \quad \frac{4}{5} \div \frac{1}{2}$$

$$\boxed{3} \quad \frac{3}{10} \div \frac{9}{10}$$

$$\boxed{6} \quad 1 \div \frac{1}{8}$$

$$\boxed{7} \quad 5 \div \frac{2}{3}$$

$$\boxed{8} \quad 6\frac{2}{5} \div 20$$

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Percents

Write each percent as a fraction or mixed number. Simplify.

1 21%

2 5%

3 14%

4 130%

5 $12\frac{1}{2}\%$

Write each percent as a decimal.

6 47%

7 26.3%

8 219%

9 .02%

10 $3\frac{1}{2}\%$

Write each decimal as a percent.

11 0.33

12 0.04

13 2.51

14 6.8

15 3

Write each fraction as a percent.

16 $\frac{3}{4}$

17 $\frac{2}{5}$

18 $\frac{1}{10}$

19 $\frac{1}{8}$

20 $2\frac{3}{5}$

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Exponents

Solve. No Calculators! If needed, use the backside of this paper for additional workspace. **No work = no credit.**

Evaluate each expression.

5. 3^5

6. 7^3

7. 8^4

8. 5^3

Write each product in exponential form.

9. $2 \cdot 2 \cdot 2 \cdot 2$

10. $7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7$

11. $10 \cdot 10 \cdot 10$

12. $9 \cdot 9 \cdot 9 \cdot 9 \cdot 9$

13. $12 \cdot 12 \cdot 12$

14. $5 \cdot 5 \cdot 5 \cdot 5$

15. $6 \cdot 6 \cdot 6 \cdot 6 \cdot 6$

16. $1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1$

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Order of Operations

Simplify each expression using the Order of Operations (PEMDAS). No Calculators! If needed, use the backside of this paper for additional workspace. **No work = no credit.**

Evaluate each expression.

1. $(1 + 7) \times 3$

2. $28 - 4 \cdot 7$

3. $5 + 4 \cdot 3$

4. $(40 \div 5) - 7 + 2$

5. $35 \div 7(2)$

6. 3×10^3

7. $45 \div 5 + 36 \div 4$

8. $42 \div 6 \times 2 - 9$

9. $2 \times 8 - 3^2 + 2$

10. $5 \times 2^2 + 32 \div 8$

11. $3 \times 6 - (9 - 8)^3$

12. 3.5×10^2

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Integers

Fill in the operator ($<$, $>$ or $=$) that makes the statement true.

1 $19 \underline{\hspace{1cm}} 5$

2 $-3 \underline{\hspace{1cm}} 3$

3 $0 \underline{\hspace{1cm}} -12$

4 $-7 \underline{\hspace{1cm}} -7$

5 $-22 \underline{\hspace{1cm}} -48$

Find the number equivalent to the following absolute values.

6 $|6|$

7 $|-5|$

8 $|0|$

9 $-|2|$

10 $-|-8|$

Find the opposite of each number.

11 9

12 -34

13 0

14 -5.1

15 $\frac{3}{7}$

Write TRUE or FALSE for each statement.

16 $|-8| > 0$

17 $|-2| = 2$

18 $|-6| < |-5|$

19 $3 < -(-4)$

20 $-|-9| > -|-15|$

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YOU MUST PRACTICE YOUR INTEGER OPERATIONS (ADDITION, SUBTRACTION, MULTIPLICATION, DIVISION) -memorize the rules!

Add.

1. $9 + 16$

2. $-10 + (-10)$

3. $18 + (-26)$

4. $-23 + (-15)$

5. $-45 + 35$

6. $39 + (-38)$

7. $-55 + 81$

8. $-61 + (-39)$

9. $-74 + 36$

10. $5 + (-4) + 8$

11. $-3 + 10 + (-6)$

12. $-13 + (-8) + (-12)$

13. $3 + (-10) + (-16) + 11$

14. $-17 + 31 + (-14) + 26$

Subtract.

1. $-3 - 4$

2. $5 - (-2)$

3. $-10 - 8$

4. $-15 - (-12)$

5. $-23 - (-28)$

6. $16 - 9$

7. $9 - 16$

8. $-21 - 16$

9. $28 - 37$

10. $-34 - (-46)$

11. $65 - (-6)$

12. $19 - |29|$

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Multiply or divide.

1. $8(-8)$

2. $-3(-7)$

3. $-9(4)$

4. $12(8)$

5. $33 \div (-3)$

6. $-25 \div 5$

7. $48 \div 4$

8. $-63 \div (-7)$

9. $(-4)^2$

10. $\frac{-75}{15}$

11. $-6(3)(-5)$

12. $\frac{-143}{-13}$

Evaluate each expression if $a = -7$, $b = -3$, and $c = 5$.

13. $a - 8$

14. $20 - b$

15. $a - c$

16. $c - b$

17. $b - a - c$

18. $c - b - a$

Evaluate each expression if $x = 4$ and $y = -3$.

15. $11 + y$

16. $x + (-6)$

17. $y + 2$

18. $|x + y|$

19. $|x| + y$

20. $x + |y|$

Evaluate each expression if $a = -1$, $b = 4$, and $c = -7$.

13. $3c + b$

14. $a(b + c)$

15. $c^2 - 5b$

16. $\frac{a - 6}{c}$

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Algebraic Expressions

Solve: No Calculators! If needed, use the backside of this paper for additional workspace. **No work = no credit.**

Simplify the expression by combining like terms.

1) $7b - 3b + 4$

A) $10b + 4$

B) $8b$

C) $4b + 4$

D) $-4b + 4$

2) $9x + x - 4x + x$

A) $7x$

B) $x^2 + 5x$

C) $5x$

D) $-x^2 + 5x$

3) $6a - 3a - a - 12$

A) $3a - a - 12$

B) $3a - 12$

C) $2a - 12$

D) $3a - 13$

4) $8x - 3 + 4x - 3$

A) 6

B) $6x$

C) $4x - 6$

D) $12x - 6$

Which terms are like terms? (Not all terms will be used.)

<i>Circle all terms that can be combined with $3a$.</i>	<i>Draw a square around all terms that can be combined with $4b$.</i>	<i>Underline all terms that can be combined with a^2.</i>	<i>Draw an X through all terms that can be combined with 5.</i>
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1. $14a$

2. $5ab$

3. $3b$

4. $3a^2$

5. $4b^2$

6. 17

7. 100

8. $14ab$

9. $5a^3$

10. $4a$

11. $16b$

12. $73a^2$

Simplify the following expressions by combining like terms. Show all work on a separate sheet of paper and box your answer.

13. $4x - 6x$

14. $7y + 5y - 5y$

15. $4r + 4y - 8$

16. $3m + 4n - 6n$

17. $4g + 6g - 3g$

18. $15f - 5 + 2f$

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Solving One-Step Equations

Solve: No Calculators! Show your work AND solutions on a separate piece of paper.
No work = no credit.

Solve each equation. Check your solution.

1. $s - 4 = 12$

2. $d + 2 = 21$

3. $h + 6 = 15$

4. $x + 5 = -8$

5. $b - 10 = -34$

6. $f - 22 = -6$

7. $17 + c = 41$

8. $v - 36 = 25$

9. $y - 29 = -51$

10. $19 = z - 32$

11. $13 + t = -29$

12. $55 = 39 + k$

13. $62 + b = 45$

14. $x - 39 = -65$

15. $-56 = -47 + n$

Solve each equation. Check your solution.

1. $\frac{r}{5} = 6$

2. $2d = 12$

3. $7h = -21$

4. $-8x = 40$

5. $\frac{f}{8} = -6$

6. $\frac{x}{-10} = -7$

7. $17c = -68$

8. $\frac{h}{-11} = 12$

9. $29t = -145$

10. $125 = 5z$

11. $13t = -182$

12. $117 = -39k$

Solving Equations With Negative Variables

Solve: No Calculators! Show your work AND solutions on a separate piece of paper.
No work = no credit.

1) $4 - x = 6$

2) $-3 - x = 7$

3) $5 - x = -2$

4) $-7 - x = -9$

5) $-5 = -x + 4$

6) $-13 = -x - 7$

7) $-x + 9 = 1$

8) $-x - 15 = -2$

9) $8 - x = -4$

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Solving Two-Step Equations

Solve: No Calculators! Show your work **AND** solutions on a separate piece of paper.
No work = no credit.

1. **VOCABULARY** Why is the equation $5x - 12 = 23$ called a *two-step equation*?
2. **VOCABULARY** Identify the *like terms* in the equation $3x + 4x = 21$. Explain why they are like terms.

Solve the equation. Check your solution.

5. $8 + \frac{z}{4} = 23$

6. $\frac{a}{3} - 9 = 12$

7. $4c - 7 = 17$

8. $6 + \frac{x}{5} = 31$

9. $4b - 12 = 0$

10. $12w - 8 = 28$

11. $\frac{t}{19} - 9 = 13$

12. $131 = 7s + 12$

13. $42 + \frac{t}{9} = 54$

14. $2.4a + 8 = 27.2$

15. $\frac{s}{3} - 0.6 = 1.2$

16. $5t - 17.2 = 16.3$

ERROR ANALYSIS Describe and correct the error in solving the equation.

17.


$$\begin{aligned} 4 &= \frac{y}{8} + 1 \\ 32 &= y + 1 \\ 31 &= y \end{aligned}$$

18.


$$\begin{aligned} 28y + 7 &= 21 \\ 28y &= 28 \\ y &= 1 \end{aligned}$$

