

Full Name: _____

Letter Grade / % Grade

Quarter 3: ____/____ Quarter 4: ____/____

7th Accelerated & 8th Grade Mathematics

Summer Packet

Directions:

1. This packet reviews the foundational skills you will need for success in 8th Grade/7th Accelerated Mathematics.
2. Complete this packet and be prepared to turn it in on the first day of class.
3. When solving multi-step equations and inequalities, all steps of logical reasoning should be shown, and your final answer must be **boxed**. See the following example:

$$\begin{array}{r} 97 = 10x + 27 \\ -27 \quad \quad -27 \\ \hline 70 = 10x \\ 10 \quad 10 \\ 7 = 1x \end{array} \quad \boxed{x = 7}$$

4. Feel free to use additional paper when needed. Submit any additional paper used with your packet.
5. You are encouraged to work with peers and use additional resources (for example, MagicSchool AI) to complete your work. All work, however, should be completed in your own hand.
6. Always write your first and last name on submitted work.
7. If you have questions, you are welcome to reach out to me at: slaahs@susd.org. Please plan to allow a few days for a response.
8. Have a great summer!

Addition and Subtraction with Rational Numbers—Skills Practice

Add integers.

1 $-5 + (-3) = \underline{\hspace{2cm}}$

2 $14 + (-4) + 6 + (-16) = \underline{\hspace{2cm}}$

3 $9 + (-4) = \underline{\hspace{2cm}}$

4 $15 + (-7) + (-3) = \underline{\hspace{2cm}}$

5 $-17 + 16 = \underline{\hspace{2cm}}$

6 $-18 + (-17) = \underline{\hspace{2cm}}$

7 $14 + (-16) = \underline{\hspace{2cm}}$

8 $-16 + (-7) + (-4) = \underline{\hspace{2cm}}$

9 $-19 + 36 = \underline{\hspace{2cm}}$

10 $19 + 13 + (-9) = \underline{\hspace{2cm}}$

11 $-17 + 14 + 7 + 10 = \underline{\hspace{2cm}}$

12 $-12 + (-7) = \underline{\hspace{2cm}}$

13 $-8 + 14 + (-2) + 6 = \underline{\hspace{2cm}}$

14 $-17 + (-19) = \underline{\hspace{2cm}}$

15 $79 + (-24) = \underline{\hspace{2cm}}$

16 $23 + 14 + (-3) = \underline{\hspace{2cm}}$

17 $-8 + 11 = \underline{\hspace{2cm}}$

18 $-9 + 43 + (-11) = \underline{\hspace{2cm}}$

19 $-6 + 12 + (-12) + 6 = \underline{\hspace{2cm}}$

20 $16 + (-26) = \underline{\hspace{2cm}}$

21 $45 + (-33) = \underline{\hspace{2cm}}$

22 $18 + 19 + (-8) + (-19) + 7 = \underline{\hspace{2cm}}$

23 $15 + (-3) + (-2) + 11 + 9 = \underline{\hspace{2cm}}$

24 $7 + (-14) + (-6) + 13 + 4 = \underline{\hspace{2cm}}$



Addition and Subtraction with Rational Numbers—Skills Practice

Add and subtract rational numbers.

1 $4\frac{3}{4} - (-2\frac{1}{4}) =$ _____

2 $-16.5 - 11 =$ _____

3 $\frac{1}{5} - (-\frac{4}{5}) =$ _____

4 $7.75 - 14.25 =$ _____

5 $-8\frac{1}{3} - (-4) =$ _____

6 $-15.7 - (-16.2) =$ _____

7 $8.7 - (-5.2) =$ _____

8 $6\frac{5}{6} - 9\frac{1}{6} =$ _____

9 $6.2 - (-6.8) =$ _____

10 $11.92 - 4.5 =$ _____

11 $2\frac{1}{4} - 8\frac{1}{2} + 7\frac{3}{4} =$ _____

12 $4.2 - 17.6 + 5.8 =$ _____

13 $-12.6 + 4.2 - (-2.6) =$ _____

14 $-5\frac{2}{5} - 8\frac{4}{5} + 15\frac{2}{5} =$ _____

15 $-6.5 + 11 - (-6.5) =$ _____

16 $\frac{1}{6} - (-7) + 3 - (-\frac{5}{6}) =$ _____

17 $\frac{1}{4} - 1\frac{3}{4} + 2\frac{3}{4} - (-2\frac{3}{4}) =$ _____

18 $-6.1 - 6 - (-6.1) + 16 =$ _____

19 $1.25 - 2.75 - (-3.75) + (-7.25) =$ _____

20 $8\frac{1}{5} - \frac{3}{5} + (-\frac{4}{5}) - (-1\frac{2}{5}) =$ _____



Multiplication and Division with Rational Numbers—Skills Practice

Multiply rational numbers.

1 $-\frac{3}{5} \times \left(-\frac{5}{8}\right) =$ _____

2 $2 \times (-5) \times 3 \times (-4) =$ _____

3 $-0.2 \times (-0.4) =$ _____

4 $-\frac{1}{6} \times \frac{5}{6} =$ _____

5 $-9 \times (-4) =$ _____

6 $-8 \times 7 =$ _____

7 $0.2 \times (-0.05) \times 0.3 =$ _____

8 $-0.6 \times 0.03 =$ _____

9 $6 \times (-6) =$ _____

10 $-\frac{1}{5} \times \frac{3}{5} \times \frac{4}{5} =$ _____

11 $-\frac{1}{4} \times \left(-\frac{3}{4}\right) =$ _____

12 $-0.5 \times 0.4 \times 0.3 =$ _____

13 $0.5 \times (-0.7) =$ _____

14 $-7 \times (-3) \times (-4) =$ _____

15 $-7 \times (-4) =$ _____

16 $\frac{1}{3} \times \left(-\frac{2}{3}\right) =$ _____

17 $5 \times (-8) =$ _____

18 $-2 \times -6 \times -3 =$ _____

19 $-10 \times 14 =$ _____

20 $-\frac{5}{8} \times \frac{2}{5} \times \left(-\frac{1}{4}\right) =$ _____

21 $100 \times (-9) =$ _____

22 $-\frac{1}{4} \times \frac{3}{2} \times \frac{1}{2} =$ _____

23 $-0.5 \times 0.1 \times (-0.2) \times (-0.4) =$ _____

24 $-\frac{1}{2} \times \frac{3}{2} \times \frac{5}{2} \times \left(-\frac{1}{2}\right) =$ _____



Multiplication and Division with Rational Numbers—Skills Practice

Divide rational numbers.

1 $-\frac{1}{3} \div \left(-\frac{1}{6}\right) =$ _____

2 $56 \div (-8) =$ _____

3 $-3.6 \div 0.1 =$ _____

4 $-\frac{1}{2} \div \frac{1}{8} =$ _____

5 $-44 \div (-4) =$ _____

6 $-9.8 \div (-1) =$ _____

7 $\frac{1}{6} \div \left(-\frac{1}{6}\right) =$ _____

8 $6.4 \div (-2) =$ _____

9 $35 \div (-5) =$ _____

10 $-\frac{3}{4} \div \left(-\frac{1}{2}\right) =$ _____

11 $-90 \div 9 =$ _____

12 $\frac{2}{5} \div \left(-\frac{2}{3}\right) =$ _____

13 $-8.9 \div 10 =$ _____

14 $-36 \div (-3) =$ _____

15 $-24 \div (-0.2) =$ _____

16 $-\frac{5}{3} \div \frac{5}{6} =$ _____

17 $-100 \div (-50) =$ _____

18 $5.5 \div (-0.5) =$ _____

19 $\frac{1}{8} \div \left(-\frac{1}{5}\right) =$ _____

20 $-7.5 \div (-2.5) =$ _____

21 $-32 \div 4 =$ _____

22 $-3.6 \div 1.2 =$ _____

23 $-42 \div (-6) =$ _____

24 $-\frac{1}{3} \div \left(-\frac{1}{3}\right) =$ _____



Using Properties of Operations— Skills Practice

Write an equivalent expression without parentheses, and combine terms if possible.

1 $5x + 6x =$ _____

2 $6n - 3(2n - 5) =$ _____

3 $0.5(-12p - 4) =$ _____

4 $\frac{1}{4}y + \frac{3}{4}(y - 8) =$ _____

5 $4(x - 6) + 30 =$ _____

6 $-8\left(m + \frac{1}{4}\right) =$ _____

7 $-8x - 4x + 3x + 2 =$ _____

8 $4.5a + 7 + 3.5a + 2 =$ _____

9 $-4 + 7y - 3y - 5 =$ _____

10 $\frac{1}{6}(12n + 36) =$ _____

11 $3(y + 7) - 5y =$ _____

12 $9y - 4x + 3y + 4x =$ _____

13 $8(6a + 7) =$ _____

14 $\frac{1}{6}y + 6 - \frac{7}{6}y - 4 =$ _____

15 $\frac{3}{2}x - \frac{1}{2}(x + 4) =$ _____

16 $6 + 2x + 4(x + 5) =$ _____

17 $-8(x + 3) =$ _____

18 $3y + 3(y - 2.5) =$ _____

19 $9\left(-\frac{1}{3}m + 4\right) - 6m =$ _____

20 $6.25m + 9 + 3.75m - 12 =$ _____



Two-Step Equations—Skills Practice

Solve equations of form $px + q = r$ with integers.

1 $6x + 6 = 0$

2 $-3x + 9 = 6$

3 $5x + 4 = -6$

4 $-275 = 25x - 50$

5 $90 = 20x - 10$

6 $46 = 3x + 19$

7 $-15x - 45 = -45$

8 $12x - 14 = -38$

9 $97 = 10x + 27$

10 $-6x - 13 = 35$

11 $-127 = -50x + 23$

12 $8x + 5 = -3$

13 $7x + 4 = -38$

14 $-4x - 52 = -152$

15 $-8 = -6x - 2$

16 $-25 = 10x - 25$



Two-Step Equations—Skills Practice

Solve equations of form $px + q = r$ with rational numbers.

1 $-3x + 6 = 9.9$

2 $8\frac{3}{5} = -4x + 5\frac{3}{5}$

3 $1.2x + 5.3 = 0.5$

4 $-\frac{1}{4}x + 6 = 10$

5 $7 = 11 - 0.2x$

6 $0.4x + 15 = 39.8$

7 $1\frac{3}{8} = \frac{1}{4}x + 1$

8 $\frac{2}{3}x - 4 = 36$

9 $\frac{1}{5} = \frac{7}{5} - \frac{1}{10}x$

10 $-8.2 = -7.1 + 11x$

11 $-13\frac{3}{4} = -\frac{7}{10}x + \frac{1}{4}$

12 $\frac{1}{8}x + \frac{3}{4} = \frac{1}{4}$

13 $-5.6x + 8.8 = 3.2$

14 $8x - 4\frac{2}{3} = 19\frac{1}{3}$



Two-Step Equations—Skills Practice

Solve equations of form $p(x + q) = r$ with rational numbers.

1 $-\frac{1}{4}(x + 7) = \frac{1}{4}$

2 $-0.2(p - 4) = -2$

3 $0.5(w + 10) = 5$

4 $\frac{3}{8}(y + 9) = \frac{3}{4}$

5 $-8.4 = 4(x + 6.3)$

6 $-75(p - 6) = -7.5$

7 $\frac{1}{4} = \frac{1}{8}(m - 7)$

8 $3.5 = 5(x + 4)$

9 $10(x - 31.4) = 40$

10 $\frac{1}{6}(n + 5) = -\frac{4}{3}$

11 $11(x - 0.6) = 66$

12 $15 = \frac{3}{5}(m + 6)$

13 $-\frac{1}{4}(y + 5) = 3$

14 $9.4 = 2(n + 6.5)$



Two-Step Inequalities—Skills Practice

Solve inequalities with integers.

1 $3(m - 4) < 27$

2 $-13 < 4x + 7$

3 $-2x + 7 < 19$

4 $-45 < 5(p - 2)$

5 $21 < -7(x - 2)$

6 $-9x + 10 > -8$

7 $42 > 6(m + 10)$

8 $10(n - 11) > -60$

9 $-97 < -11x - 9$

10 $25x - 9 < -109$

11 $36 < 12(w + 1)$

12 $-130 > 50x + 20$

13 $-8(x - 3) < -40$

14 $2x - 22 > -8$

15 $-35 < -5(x + 9)$

