



Incoming Eighth Grade Summer Packet

Each week this summer please complete two pages of the following review sheets. Please show as much work as you can for each problem. This will help if you are asked how you got the answer. These review sheets will be collected on the first day of school. You may get help from your parents, but do not use a calculator. Doing these review sheets will help you prepare for the Algebra 1 course. Students who complete the summer packet will get a Principal's Surprise during the first week of school.

Have a great summer!! See you soon!

~Mrs. Thangaraj

Summer Review - Week

1. Find the sum: $3.4 + 6.005$

[1] _____

2. Find the difference: $27.77 - 18.09$

[2] _____

3. Find the product: 23.7×13.67

[3] _____

4. Find the quotient: $9.744 \div 0.87$

[4] _____

Find the greatest common factor of the pair of numbers.

5. 8, 28

[5] _____

6. 36, 42

[6] _____

7. 54, 81

[7] _____

Find the greatest common factor of the pair of numbers.

8. 50, 150

[8] _____

Find the least common multiple of the pair of numbers.

9. 6, 7

[9] _____

10. 10, 15

[10] _____

11. 24, 38

[11] _____

12. 12, 36

[12] _____

Find the prime factorization of the following numbers:

1) 32

2) 25

3) 156

4) 72

Summer Review - Week

Find the least common denominator of the pair of fractions.

13. $\frac{1}{2}, \frac{7}{10}$

[13] _____

14. $\frac{5}{8}, \frac{6}{7}$

[14] _____

15. $\frac{5}{9}, \frac{7}{12}$

[15] _____

16. $\frac{11}{20}, \frac{15}{32}$

[16] _____

Find the reciprocal of the number.

17. 12

[17] _____

Find the reciprocal of the number.

18. $\frac{3}{16}$

[18] _____

19. $\frac{9}{5}$

[19] _____

20. $2\frac{1}{3}$

[20] _____

21. Subtract $\frac{3}{4} - \frac{1}{4}$. Write the answer in simplest form.

[21] _____

22. Add $\frac{1}{2} + \frac{1}{8}$. Write the answer in simplest form.

[22] _____

Find the mean, median, mode, and range of the following set of data.

Rank the statistics.

12, 15, 13, 12, 20, 22, 12

Mean: _____

Median: _____

Mode: _____

Range: _____

Summer Review - Week

23. Add $\frac{6}{7} + \frac{5}{9}$. Write the answer in simplest form.

[23] _____

24. Subtract $11\frac{1}{4} - 2\frac{5}{8}$. Write the answer in simplest form.

[24] _____

25. Multiply $\frac{1}{2} \times \frac{6}{11}$. Write the answer in simplest form.

[25] _____

26. Divide $\frac{7}{11} \div \frac{3}{5}$. Write the answer in simplest form.

[26] _____

27. Divide $\frac{4}{15} \div \frac{8}{3}$. Write the answer in simplest form.

[27] _____

28. Multiply $4\frac{1}{8} \times \frac{2}{3}$. Write the answer in simplest form.

[28] _____

Write the percent as a decimal and as a fraction in simplest form.

29. 7%

[29] _____

30. 26%

[30] _____

31. 48%

[31] _____

32. 84%

[32] _____

Write the decimal as a percent and as a fraction in simplest form.

33. 0.08

[33] _____

34. 0.15

[34] _____

Write the numbers in order from least to greatest.

0.19, 0.9, 0.49, 0.4

-5.4, -6.5, 6.4, -6

Summer Review - Week

Write the decimal as a percent and as a fraction in simplest form.

35. 0.47

[35] _____

36. 0.027

[36] _____

Write the fraction as a decimal and as a percent.

37. $\frac{9}{10}$

[37] _____

38. $\frac{4}{5}$

[38] _____

39. $\frac{7}{8}$

[39] _____

Order the following numbers from least to greatest:

$0, -3, \frac{7}{10}, -2\frac{2}{3}, -8, 10, 4\frac{4}{5}, -2$

_____ < _____ < _____ < _____ < _____ < _____ < _____ < _____

Solve the following equations. Show all of your work.

1) $x + 8 = 11$

2) $x - 5 = 20$

3) $\frac{x}{7} = 3$

4) $3x = 21$

5) $3x - 3 = 6$

6) $6x + 4 = 10$

7) $8x = -56$

8) $2x - 5 = 7$

9) $12x - 8 = 16$

10) $\frac{x}{5} - 3 = 6$

11) $\frac{x}{3} = \frac{4}{12}$

12) $\frac{3}{6} = \frac{x}{7}$

13) $\frac{x}{7} + 2 = 9$

14) $6x + 5 = 29$

15) $\frac{x}{7} + 2 = 5$

Summer Review - Week #5

Adding integers.

Rules for addition of integers: When you add same signs, add the absolute values and keep the sign.

When you add different signs, subtract the absolute values, and keep the sign of the number with greater absolute value.

Examples: $-14 + (-9) = -23$

$$-18 + (12) = -4$$

$$6 + (-2) + (-5) + (-3) + 9 = 15 + (-10) = 5$$

1) $-23 + (-14) =$

2) $-7 + 5 =$

3) $-4 + (-7) =$

4) $5 + (-4) + (-6) + (-3) + 7 =$

5) $-4 + 16 =$

6) $-68 + 60 + (-4) + (-28) + 89 =$

7) $9 + (-2) =$

8) $-3 + (-9) + 4 + 8 + (-1) =$

9) $19 + (-8) =$

10) $-7 + (-16) =$

11) $-20 + (-12) =$

12) $-11 + 5 =$

13) $-2 + (-2) =$

14) $21 + 11 + (-32) + (-19) + 6 =$

15) $10 + 9 + (-24) + (-8) + 7 =$

16) $-6 + 16 + (-14) + (-12) + 19 =$

$$17) 7 + (-19) =$$

$$18) 8 + (-19) =$$

$$19) -1 + (-3) =$$

$$20) 2 + 10 + (-11) + (-19) + 6 =$$

Subtracting integers:

Rules: Change the sign of the subtrahend. Use addition rules after that.

Examples: $-14 - (-9) = -14 + (+9) = -5$

$$-18 - (12) = -18 + (-12) = -30$$

$$1) -21 - 18 =$$

$$2) 12 - 4 =$$

$$3) -23 - 11 =$$

$$4) -52 - 48 =$$

$$5) -8 - 7 =$$

$$6) 14 - (-2) =$$

$$7) 36 - (-52) =$$

$$8) -29 - 27 =$$

$$9) -32 - 9 =$$

$$10) 8 - (-16) =$$

$$11) -32 - 67 =$$

$$12) 11 - 14 =$$

$$13) -23 - (-29) =$$

$$14) 16 - 57 =$$

$$15) -8 - 2 =$$

$$16) 26 - 45 =$$

Summer Review - Week #6

Multiplying integers.

Rules for multiplying integers:

When you multiply two numbers with same signs, you get a positive product. When you multiply two numbers with different signs, you get a negative product.

When there are more than two factors being multiplied, count the number of negative signs:

Even number of negative signs = positive product

Odd number of negative signs = negative product

Examples:

$$-5 \times -9 = 45$$

$$6 \times -7 = -42$$

$$-3 \times -2 \times 5 = 30$$

$$5 \times -3 \times 4 = -60$$

1) $-10 \times 1 =$

2) $8 \times -6 =$

3) $16 \times 11 =$

4) $-5 \times 1 =$

5) $19 \times -3 =$

6) $-20 \times 1 =$

7) $6 \times -3 =$

8) $-9 \times 10 =$

9) $2 \times -10 =$

10) $-6 \times -9 =$

11) $12 \times 16 \times -6 =$

12) $-19 \times -16 \times -8 =$

13) $-6 \times -15 \times -9 =$

14) $16 \times -7 \times -4 =$

15) $8 \times 9 \times -12 =$

Dividing integers:

Rules for division:

When you divide numbers with same signs, you get a positive quotient. When you divide numbers with different signs, you get a negative quotient.

Examples:

$$-15 \div -3 = 5$$

$$-16 \div 4 = -4$$

1) $16 \div 4 =$

2) $-224 \div -14 =$

3) $100 \div -10 =$

4) $-72 \div -6 =$

5) $-196 \div -4 =$

6) $-80 \div 4 =$

7) $-9 \div 3 =$

8) $-72 \div -9 =$

9) $-180 \div 20 =$

10) $-30 \div -2 =$

11) $-104 \div -8 =$

12) $40 \div 8 =$

13) $-51 \div -3 =$

14) $-64 \div 4 =$

15) $24 \div -6 =$

16) $-125 \div 5 =$

17) $-24 \div 8 =$

18) $152 \div 19 =$

19) $-126 \div 6 =$

20) $-1821 \div -3 =$

Solve the following equations. Show all of your work.

1) $2x = 22 - 8$

2) $3x - 4 = 20$

3) $\frac{5x}{9} = 10$

4) $7x = 21$

5) $5x - 6 = 9$

6) $4x - 2 = 10$

7) $8x = 56$

8) $2x + 7 = 3$

9) $12x + 9 = 21$

10) $\frac{x}{5} - 2 = 8$

Summer Review - Week

Please show any work you have done to complete each problem.

Operations with Integers.

1) $-60 \div -2 =$

2) $49 + -7 =$

3) $(-2)(4) =$

4) $(-2)(-4)(-2) =$

5) $12 + -5 =$

6) $(2)(-1)(2)(-3) =$

7) $-25 \div -5 =$

8) $-1 + 4 =$

9) $4 - 8 =$

10) $-(-3)(-3) =$

11) $0 - (-3) =$

12) $-32 \div -4 =$

13) $-7 - 17 =$

14) $(-9)(0)(-7) =$

15) $-4 - 6 =$

16) $(2)(-7) =$

17) $16 + -4 =$

18) $-54 \div -9 =$

19) $-15 - 5 =$

20) $(-5)(-5) =$

21) $19 - 24 =$

22) $7 - (-6) =$

23) $-8 - (-4) =$

24) $-45 \div 5 =$

25) $35 + (-16) =$

Order of Operations:

Remember: PEMDAS (Parenthesis first, exponents second, multiplication and division from left to right, third, and addition and subtraction from left to right, last)

1) $48 \div 2 \cdot 3$

2) $5 + 4 - 8$

3) $30 - 6 \cdot 3$

4) $9 + 4 \cdot 6$

5) $(15 - 10) \div (2 + 3)$

6) $\frac{4(2+6)}{9-10 \div 2}$

7) $5 \cdot (2 + 4)^2$

8) $5^3 + 4 \cdot 3$

9) $8 + 9 \cdot 6^2$

10) $60 - 2 \cdot 3$

11) $2^3 + (4 - 3)$

12) $(4 - 1)^2 + 5 \cdot 3$

Summer Review - Week #8

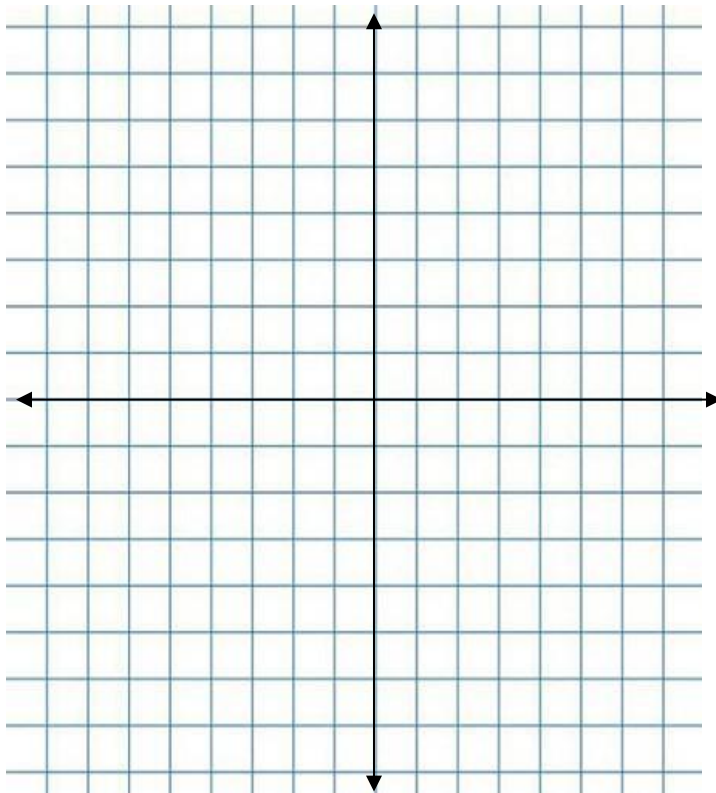
Evaluate the following expressions if $x=5$, $y=-2$, and $z=0$.

- 1) $x + y$ 2) $x - y$ 3) $\frac{x-9}{4}$ 4) $4y + 7$ 5) $3z + 2$

Complete the table and graph the following equation. Remember to connect the points once you are done plotting the points.

$$y = 2x - 1$$

| | | | | | | | | | |
|---|----|---|---|---|---|---|---|---|---|
| x | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| y | -1 | | | | | 9 | | | |



Solve the following equations:

1) $p + 2p - 3 = 6$

2) $12v + 14 + 10v = 80$

3) $6c - 8 - 2c = -16$

4) $5a + 3 - 3a = -7$

5) $\frac{1}{3}c = 6$

6) $-7r = 56$

Solve the following proportions.

1) $\frac{3}{7} = \frac{18}{x}$

2) $\frac{w}{35} = \frac{4}{7}$

3) $\frac{9}{2} = \frac{m}{12}$

4) $\frac{3a}{4} = \frac{36}{12}$ (Use cross-multiplication first)

5) $\frac{6r}{10} = \frac{36}{15}$

6) $\frac{12}{42} = \frac{4w}{56}$