

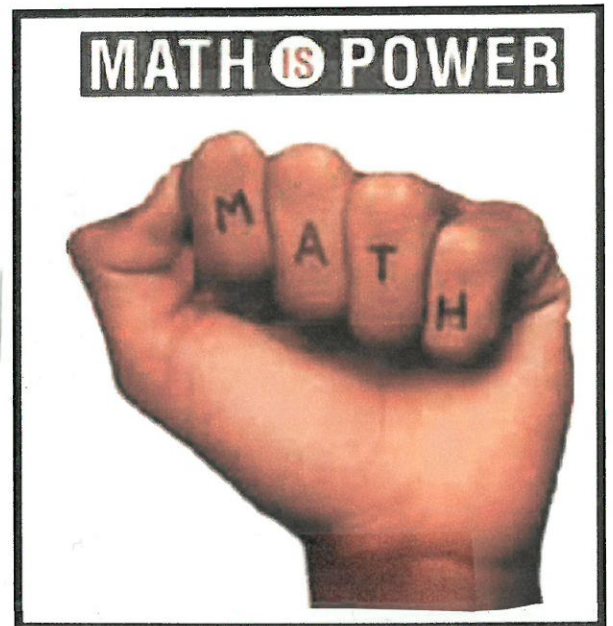
# Summer Math Packet

## Entering Grade 6

**Packet Due:** Thursday, September 2, 2021

### Directions:

- Complete each problem.
- Show all work neatly in the packet.
- Do NOT use a calculator.
- If you are stuck on a particular problem, ask someone at home for help or check out some of the math websites posted below.



### Helpful Websites:

[www.khanacademy.org](http://www.khanacademy.org)

[www.aplusmath.com](http://www.aplusmath.com)

[www.funbrain.com](http://www.funbrain.com)

[www.mathtv.com](http://www.mathtv.com)

[www.ixl.com](http://www.ixl.com)

<http://www.virtualnerd.com/common-core/all>

[www.hoodamath.com](http://www.hoodamath.com) (Games)

**Addition**

Find the sum of the two numbers in each problem.  
Show all work.

Example:

$$\begin{array}{r} & 1 & 1 & & \\ & 4 & 4 & 8 & \\ + & 1 & 8 & 8 & \\ \hline & 6 & 3 & 6 & \end{array}$$

1.  $\begin{array}{r} 652 \\ + 345 \\ \hline \end{array}$

2.  $\begin{array}{r} 203 \\ + 525 \\ \hline \end{array}$

3.  $\begin{array}{r} 726 \\ + 268 \\ \hline \end{array}$

**Decimal Addition:**

Remember to line up the decimals before adding. Bring the decimal straight down in your answer.

4.  $\begin{array}{r} 7.75 \\ + 1.46 \\ \hline \end{array}$

5.  $51.4 + 2.86$

6.  $.1274 + 8.25$

**Subtraction**

Find the difference between the two numbers in each problem. Show all work.

Example:

$$\begin{array}{r} & 3 & 13 & & \\ & 7 & 4 & 3 & \\ - & 2 & 1 & 8 & \\ \hline & 5 & 2 & 5 & \end{array}$$

7.  $\begin{array}{r} 407 \\ - 198 \\ \hline \end{array}$

8.  $\begin{array}{r} 7,007 \\ - 2,426 \\ \hline \end{array}$

9.  $\begin{array}{r} 3,414 \\ - 1,218 \\ \hline \end{array}$

**Decimal Subtraction:**

Remember to line up the decimals before subtracting. Bring the decimal straight down in your answer.

10.  $\begin{array}{r} 338.38 \\ - 149.27 \\ \hline \end{array}$

11.  $80.401 - 44.23$

12.  $75.89 - 9.4$

**Multiplication**

Find the product of the two numbers in each problem. Show all work.

Example:

$$\begin{array}{r} 54 \\ \times 16 \\ \hline 324 \\ + 540 \\ \hline 864 \end{array}$$

13.

$$\begin{array}{r} 65 \\ \times 4 \\ \hline \end{array}$$

14.

$$\begin{array}{r} 42 \\ \times 8 \\ \hline \end{array}$$

15.

$$\begin{array}{r} 84 \\ \times 39 \\ \hline \end{array}$$

**Decimal Multiplication:**

Multiply as you would with whole numbers. Count the decimal places in each factor. The product (answer) has the same number of decimal places.

16.

$$\begin{array}{r} .13 \\ \times 70 \\ \hline \end{array}$$

17.

$$\begin{array}{r} 5.1 \\ \times 2 \\ \hline \end{array}$$

18.

$$\begin{array}{r} .108 \\ \times 2.5 \\ \hline \end{array}$$

**Division**

Find the quotient in each problem. If there is a remainder, state the remainders as R=\_\_\_\_. Show all work. Feel free to use a separate sheet of paper.

19.

$$7 \overline{)591}$$

20.

$$12 \overline{)264}$$

21.

$$43 \overline{)2815}$$

### Decimal Division:

If the divisor (outside number) is a decimal, you must move the decimal point (using multiplication) to the right until it becomes a whole number. Then, move the decimal in the dividend (inside number) the same number of times. Divide to find your answer (quotient).

Then, move the decimal straight up from the dividend to the quotient.

$$\begin{array}{r} \text{quotient} \\ \text{divisor} \overline{) \text{dividend}} \end{array}$$

Remember, no remainders.

22.

23.

24.

$$3 \overline{) 31.8}$$

$$.5 \overline{) 7.45}$$

$$.12 \overline{) 12.24}$$

### Rounding

Underline the given place value. Look to the right. If this digit is 5 or greater, increase the underlined digit by 1. If the digit to the right is less than 5, keep the underlined digit the same.

Round to the nearest...

hundredth

0.547

0.55

Round to the nearest....

25. tenth  
0.3479

26. hundredth  
0.7553

27. whole number  
3.268

28. ten  
162.21

29. thousandth  
0.0036

30. hundred  
990.54

Compare the decimals.

Compare using  $<$ ,  $>$ , or  $=$

$$1.2 \bigcirc 1.20 \quad 1.2 = 1.20$$

31. 0.205  $\bigcirc$  0.21

32. 1.03  $\bigcirc$  0.03

33. 0.04  $\bigcirc$  0.050

34. 0.1  $\bigcirc$  0.1000

35. 0.52  $\bigcirc$  0.500

36. 0.41  $\bigcirc$  0.405

### Greatest Common Factor

The greatest factor that two or more numbers have in common (GCF).

1. List all the factors of **four** in order
2. List all the factors of **twenty** in order
3. List the common factors
4. Write the greatest common factor

### Finding Common Factors:

4: 1, 2, 4

20: 1, 2, 4, 5, 10, 20

Common Factors: 1, 2, 4    GCF= 4

List all the factors for each number. Circle the common factors.

37. 18 : \_\_\_\_\_

30 : \_\_\_\_\_

Common Factors: \_\_\_\_\_      Greatest Common Factor: \_\_\_\_\_

38. 60 : \_\_\_\_\_

45 : \_\_\_\_\_

Common Factors: \_\_\_\_\_      Greatest Common Factor: \_\_\_\_\_

39. 23: \_\_\_\_\_

29: \_\_\_\_\_

Common Factors: \_\_\_\_\_      Greatest Common Factor: \_\_\_\_\_

40. 56: \_\_\_\_\_

72: \_\_\_\_\_

Common Factors: \_\_\_\_\_      Greatest Common Factor: \_\_\_\_\_

**Least Common Multiple**

The smallest nonzero multiple that two or more numbers have in common.

1. List the first 6 multiples of 4
2. List the first 6 multiples of 6
3. List the common multiples
4. Write the least common multiple.

**Finding Common Multiples:**

4: 4, 8, 12, 16, 20, 24

6: 6, 12, 18, 24, 30, 36

Least Common Multiple= 12

41. 8 : \_\_\_\_\_

12 : \_\_\_\_\_

Common Multiples: \_\_\_\_\_ Least Common Multiple: \_\_\_\_\_

42. 7 : \_\_\_\_\_

11 : \_\_\_\_\_

Common Multiples: \_\_\_\_\_ Least Common Multiple: \_\_\_\_\_

43. 25 : \_\_\_\_\_

10 : \_\_\_\_\_

Common Multiples: \_\_\_\_\_ Least Common Multiple: \_\_\_\_\_

44. 24 : \_\_\_\_\_

36 : \_\_\_\_\_

Common Multiples: \_\_\_\_\_ Least Common Multiple: \_\_\_\_\_

### Comparing Fractions

Compare each pair of numbers. Write the correct comparison symbol ( $<$ ,  $>$ ,  $=$ ) in each circle. Make sure you have common denominators before comparing numerators.

Example:

$$\begin{array}{ccc} \frac{1}{3} & \bigcirc & \frac{3}{4} \\ \downarrow & & \downarrow \\ \frac{4}{12} & & \frac{9}{12} \end{array}$$

45.

$$\frac{3}{8} \bigcirc \frac{5}{8}$$

46.

$$\frac{3}{4} \bigcirc \frac{3}{8}$$

47.

$$\frac{1}{2} \bigcirc \frac{4}{8}$$

48.

$$\frac{3}{7} \bigcirc \frac{1}{4}$$

49.

$$\frac{3}{5} \bigcirc \frac{5}{6}$$

50.

$$\frac{7}{8} \bigcirc \frac{3}{4}$$

### Ordering Fractions

Order the following fractions from least to greatest.

51.

$$\frac{3}{8} \quad \frac{5}{8} \quad \frac{4}{8} \quad \frac{2}{8} \quad \frac{7}{8}$$

52.

$$\frac{1}{5} \quad \frac{4}{5} \quad \frac{1}{10} \quad \frac{6}{10} \quad \frac{7}{10}$$

53.

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

54.

$$\frac{1}{2} \quad \frac{5}{16} \quad \frac{30}{64} \quad \frac{3}{8} \quad \frac{9}{32}$$

### Simply Fractions

Simplify the following fractions. If the fractions are improper, change them to mixed numbers then simplify.

Example:  $\frac{10}{5} = \frac{2}{1}$   
 $\frac{25}{5} = 5$

55.

$$\frac{14}{28}$$

56.

$$\frac{15}{55}$$

57.

$$\frac{12}{51}$$

58.

$$\frac{34}{48}$$

59.

$$\frac{17}{4}$$

60.

$$\frac{80}{25}$$

### Adding Fractions and Mixed Numbers

Add the following fractions. Make sure you have common denominators before adding. Remember, you only add the numerator (top number) and you keep the denominator (bottom number) the same! Simplify your final answers.

Example:

$$\begin{array}{r} \frac{1}{3} + \frac{1}{5} = \\ \downarrow \quad \downarrow \\ \frac{5}{15} + \frac{3}{15} = \frac{8}{15} \end{array}$$

61.

$$\frac{6}{10} + \frac{3}{10} =$$

62.

$$2\frac{3}{8} + 1\frac{2}{8} =$$

63.

$$\frac{1}{9} + \frac{5}{6} =$$

64.

$$\frac{1}{12} + 1\frac{2}{3} =$$



### Subtracting Fractions

Subtract the following fractions. Make sure you have common denominators before subtracting. Remember, you only subtract the numerator (top number) and you keep the denominator (bottom number) the same! Simplify your final answers.

Example:

$$\begin{array}{r} \frac{5}{6} - \frac{1}{3} = \\ \downarrow \quad \downarrow \\ \frac{5}{6} - \frac{2}{6} = \frac{3}{6} = \frac{1}{2} \end{array}$$

65.

$$\frac{5}{6} - \frac{3}{6} =$$

66.

$$2\frac{8}{12} - 1\frac{3}{12} =$$

67.

$$\frac{7}{10} - \frac{2}{4} =$$

68.

$$3\frac{4}{5} - \frac{1}{4} =$$

### Multiplying Fractions

Multiply the following fractions. Multiply the numerators; then multiply the denominators. Simplify, if necessary.

Example:

$$\frac{3}{5} \times \frac{5}{9} = \frac{15}{45} = \frac{1}{3}$$

69.

$$\frac{3}{4} \times \frac{1}{3} =$$

70.

$$\frac{2}{3} \times \frac{5}{8} =$$

71.

$$\frac{1}{3} \times \frac{2}{5} =$$

72.

$$\frac{7}{8} \times 2 =$$