

Name: \_\_\_\_\_

Miss Young

6th Grade Math Readiness Packet

Dear 6th Graders,

Congratulations on completing your lower school years and welcome to Middle School! Believe it or not, this math packet was NOT created to torture you! Instead, it was made to help you keep your math skills strong over the summer. Don't worry, just in case you forgot some things, there are some hints as you go. Some directions and a suggested outline of completion can be found below...

Directions:

- The Summer Math Packet will count as your first grade of the first marking period in math!
- Students are to complete all work and are NOT to use calculators, except to check their work. You need to show your work as much as possible. Feel free to attach any scrap paper with work if you run out of room.
- You will bring this **completed** packet with you on the first day of school.

Suggested Timeline for Completion:

- Week 1: Place Value #1-7
- Week 2: Computation #8-**13**
- Week 3: Computation #14-18
- Week 4: Fractions #19-23
- Week 5: Fractions #24-37
- Week 6: Geometry #38-45
- Week 7: Patterns #46-50

Good luck & have a **wonderful** summer!

Can't wait to see you all in September!

Blessings,  
Miss Young

# I. Place Value

Hint:

Name the place value of the underlined digit.

1. 946,207

2. 57,862

3. 82.395

4. 0.784

Place Value chart

|                 |          |         |     |       |        |            |
|-----------------|----------|---------|-----|-------|--------|------------|
| Ten<br>thousand | thousand | hundred | ten | Ones. | tenths | hundredths |
|-----------------|----------|---------|-----|-------|--------|------------|

Round to the given place value position.

Hint:

5. Round 7.623 to the nearest tenth

6. Round 2.742 to the nearest hundredth

7. Round 1.539 to the nearest hundredth

- Identify rounding place
- Look at digit to the right
- If 0,1,2,3,4 → round down
- If 5,6,7,8,9 → round up

## II. Computation

Add, Subtract, Multiply, Divide.

8.  $105 + 3,046$

9.  $8,000 - 5,672$

10.  $659 \times 72$

11.  $1,368 \div 6$

12.  $7.08 + 10.74$

13.  $2.8 - 2.28$

Hint:

- Line up the numbers by place value position
- Line up the decimal points
- *Add or Subtract* digits in the same place value position

14. For your birthday you receive a \$25 gift card. You want to buy 3 used video games for \$10.79, \$6.20, and \$6.92. Can you buy all three games using your gift card?

Hint:

-Read carefully and decide if you must add, subtract, multiply or divide

15. You buy a pack of 8 trading cards for \$6.16. Find the price of each card.

16. Alice ran 4,230 meters in a race. Helen ran 4,825 meters. ABOUT how many meters did the girls run?
- a) a little less than 8,000
  - b) a little more than 8,000
  - c) a little less than 9,000
  - d) a little more than 9,000

17. The students collected between 3,000 and 4,000 pennies every month for 9 months. ABOUT how many pennies could they have collected?
- a) 10,000
  - b) 20,000
  - c) 30,000
  - d) 40,000

18. Mr. Lowe bought 3 children's movie tickets for \$3.50 each and 2 adults tickets for \$6.00 each. What is his change from \$50?

### III. Fractions

19. List the factors of 24.

Hint:

*Factors* are numbers that can divide into a whole number with a remainder of zero.

20. List the factors of 19.

Hint:

21. Tell whether the number 24 is prime or composite.

*Prime number:* a number that has exactly 2 factors, itself and 1

*Composite number:* a number that has 3 or more factors

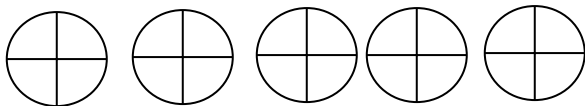
22. Tell whether the number 19 is prime or composite.

Hint:

23. Find the prime factorization of the number 20.

Make a factor tree

24. Shade in the diagram to represent  $4\frac{1}{4}$ . Write as an improper fraction.



Hint:

**Mixed number → improper fraction**

- multiply whole number by denominator, then add numerator
- Write the sum over the denominator

25. Write  $5\frac{11}{12}$  as an improper fraction.

$$3\frac{4}{5} = \frac{3 \otimes 5 + 4}{5} = \frac{15 + 4}{5} = \frac{19}{5}$$

26. Write  $\frac{9}{4}$  as a mixed number.

Hint:

**Improper fraction → mixed number**

- Divide numerator by denominator
- Write the remainder as the numerator, denominator stays the same

27. Draw a model to represent  $\frac{9}{4}$  as a mixed number.

$$\frac{7}{3} = 3\frac{2}{3} = 2\frac{1}{3}$$

28. Write the fraction  $\frac{15}{24}$  in simplest form.

Hint:

**To simplify fractions:**  
Divide the numerator and denominator the greatest common factor

29. Write the fraction  $\frac{6}{12}$  in simplest form.

$$\frac{5}{15} \div \frac{5}{5} = \frac{1}{3}$$

Find the sum or difference. Put your answer in **SIMPLEST FORM**.

30.  $\frac{2}{6} + \frac{3}{6}$

31.  $\frac{7}{8} - \frac{5}{8}$

32.  $\frac{1}{9} + \frac{7}{18}$

33.  $\frac{9}{10} + \frac{1}{2}$

34.  $\frac{3}{4} - \frac{2}{3}$

35.  $8\frac{6}{21} + 3\frac{1}{21}$

36.  $2\frac{7}{8} + 3\frac{5}{8}$

37.  $7\frac{3}{10} - 5\frac{1}{10}$

Hint:

**To add or subtract fractions with like denominators**

- Add or subtract the numerators
- Use the same denominator
- Simplify

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

**To add or subtract fractions with unlike denominators**

- Find a common denominator
- Rename the numerators
- Add or subtract the numerators
- Denominator stays the same
- Simplify

$$\frac{2}{3} = \frac{4}{6}$$

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

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$$\frac{5}{6}$$

**To add or subtract mixed numbers**

- Add or subtract the fractions
- Add or subtract the whole numbers
- Rename and simplify if necessary

$$2\frac{1}{6}$$

$$+ 3\frac{1}{6}$$

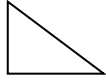
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$$5\frac{2}{6} = 5\frac{1}{3}$$



## IV. Geometry

38. Identify the polygon.

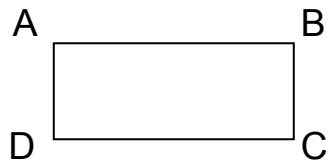


Hint:

*Polygons* are classified by the number of sides

39. Tell the number of sides of a hexagon.

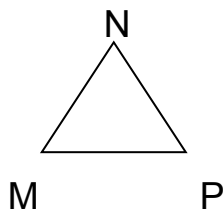
40. Classify angle A.



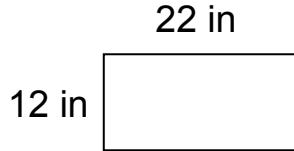
Hint:

*Angles* are classified acute, right, or obtuse

41. Classify angle M.



42. Find the perimeter of the rectangle.

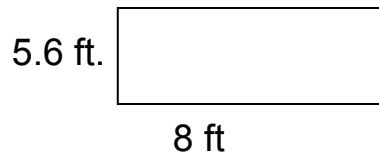


Hint:

*Perimeter:* the distance around a closed figure;

-add all sides

43. Find the area of the rectangle.



Hint:

*Area:* the number of square units needed to cover a surface;

Area of rectangle = length x width

44. Draw the solid figure *cylinder*.

Hint:

Remember solid figures are three-dimensional and take up space.

45. Draw the solid figure *cone*.

## V. Patterns

Hint:

46. Describe the following pattern: 3, 10, 17, 24, . . .  
Then write the next 3 numbers.

- Find how the number or shapes are changing from one term to the next.
- Apply the rule.

47. Describe the following pattern: 4, 20, 100, 500, ...  
Then write the next 3 numbers.

48. Write the first 4 numbers in the pattern. Start with 4 and repeatedly add 8.

49. What are the next 3 shapes that should be put in the row?



50. You are a member of a summer movie club. The club meets every Wednesday in July to watch a movie. If its first meeting is July 5, on what other dates in July will the club meet?