

Summer Packet: Students entering 6<sup>th</sup> grade Pre-Algebra or Advanced Pre-Algebra

**Decimals:**

1.)  $47.33 + 179.6$

2.)  $53.72 - 12.909$

3.)  $870.43 \times 1.46$

4.)  $26.8 \times 0.34$

5.)  $36.75 \div 4.2$

6.)  $0.31144 \div 3.4$

**Fractions:** (All answers should be in simplest form.)

7.)  $\frac{1}{6} + \frac{5}{8}$

8.)  $\frac{7}{9} + \frac{7}{12}$

9.)  $4\frac{1}{6} + 5\frac{4}{9}$

10.)  $7\frac{1}{2} - 2\frac{5}{6}$

11.)  $4\frac{2}{3} - 2\frac{1}{5}$

12.)  $\frac{12}{35} \times \frac{21}{54}$

13.)  $2\frac{1}{3} \times 3\frac{1}{5}$

14.)  $4\frac{2}{3} \div 3\frac{1}{3}$

15.)  $\frac{2}{3} \div 6$

16.) Write the fraction in simplest form:  $\frac{36}{96}$

17.) Write  $\frac{49}{11}$  as a mixed number.

18.) Write  $6\frac{7}{8}$  as an improper fraction.

**Integers:** (Make sure to check the sign of your answer.)

19.)  $-5 + -8$

20.)  $-13 - -18$

21.)  $17 - -9$

22.)  $-16 + 22$

23.)  $-2 \times 18$

24.)  $-14 \times -6$

25.)  $-128 \div 4$

**Comparing Numbers:** (Write  $<$ ,  $>$ , or  $=$  to compare the numbers.)

26.)  $\frac{1}{5}$   $\textcircled{?}$   $\frac{1}{8}$

27.)  $-2.5$   $\textcircled{?}$   $-2.6$

28.)  $7.\bar{5}$   $\textcircled{?}$   $7.55$

29.)  $6\frac{3}{4}$   $\textcircled{?}$   $6.75$

**Order of Operations:** (Solve the problems.)

30.)  $72 \div 8 \times 3 - 2 + 8$

31.)  $60 - 3 \times 2^3 - (5 - 2)^2$

32.)  $39 - 5 \times 3 + 4^2$

33.)  $4\frac{1}{2} + 5\frac{1}{3} \times 1\frac{1}{8}$

**Decimals, Fractions, and Percents:**

34.) Write 0.912 as a percent.

35.) Write 6.4% as a decimal.

36.) Write  $\frac{5}{8}$  as a decimal.

37.) Write  $\frac{13}{20}$  as a percent

38.) Write 35% as a fraction in simplest form.

**Percents:** (Solve the problems.)

39.) Find 24% of 72

40.) Find 8% of 250

41.) You buy a pair of pants that originally costs \$45. The store has them on sale for 25% off. What is the sale price?

42.) 15% of the students in 6<sup>th</sup> grade are in band. There are 180 students in 6<sup>th</sup> grade. How many 6<sup>th</sup> grade band students are there?

**Equations & Inequalities:** (Solve the equations.)

43.)  $5x = 8$

44.)  $h - 71 = 104$

45.)  $\frac{m}{1.2} = 4.8$

46.)  $n + 7.2 = 19$

47.)  $\frac{3}{4}f = \frac{5}{8}$

48.)  $y - 4\frac{2}{3} = 2\frac{1}{4}$

**Word Problems:** (Solve.)

49.) Gina has some money in her wallet. She goes to the diner and spends \$10.75 on breakfast and then stops at Staples and buys an ink cartridge for \$28.50. She counts her money when she gets in the car and she now has \$32.14. How much money did she have in her wallet before breakfast?

50.) A teacher divides 36 students into equal groups for a scavenger hunt. Each group should have at least 4 students, but no more than 8 students. What are the possible group sizes the teacher can make?

- 51.) The cooking time for a ham is  $\frac{2}{5}$  of an hour for each pound of ham. How long should you cook a ham that weighs  $12\frac{3}{4}$  pounds?

**Expressions:**

- 52.) Write the phrase as an **expression**: the sum of nine and triple a number *m*
- 53.) Write the phrase as an **expression**: The product of 5 and the number, *m*

**Geometry:**

- 54.) Find the area of a rectangle that is 15 feet by 9 feet.
- 55.) Find the perimeter of a rectangle that is 15 feet by 9 feet.
- 56.) Find the volume of a box that is 24 cm long, 35 cm high and 11 cm wide.

**Coordinate Plane:** (Plot the ordered pairs in the coordinate plane.)

- 57.) A( 3, - 4)      B( - 4, 2)  
C( - 2, 0)      D( - 3, - 5)

Make sure you label the point with its letter name when you graph it.

