

Summer Math Practice – Algebra 1

This summer math worksheet is for all students entering a high school level Algebra 1 class. Work the following problems over the summer. Be sure to show ALL your work neatly on a separate sheet of paper.

NO Calculators should be used on this worksheet.

Set 1

- $3\frac{1}{2} + 5\frac{2}{3}$
- $4.6 - 3.98$
- $-3 \cdot 4 + 6 - 4 \div 2$
- Evaluate: $-5|k+1|$
when $k = -11$
- Simplify: $\frac{36}{40}$
- Solve: $\frac{n}{6} = \frac{3}{8}$
- Write $\frac{7}{10}$ as a percent
- Solve: $85 + a = 150$
- Solve: $6x + 8 = 50$
- Find the GCF and LCM of 15 and 60
- Find the prime factorization of 56
- Estimate to the nearest whole number
 $3\frac{1}{5} + 9\frac{2}{10}$
- Find the area and perimeter of a square with sides of 3 inches
- Write an algebraic expression for:
“the sum of 32 and x”
- What is 25% of 32?
- Simplify: $\sqrt{9} + \sqrt{4}$
- Simplify: $3 + 4(2+1)^2$
- Solve: $-3 = \frac{n}{-6} + 9$
- Place the following *Real* numbers in order from least to greatest
 $\{\frac{1}{3}, \frac{1}{2}, 0.7, 0, -5, -2\}$
- List the first four (non-zero) multiples of 5

Set 2

- $8 - 4\frac{2}{7}$
- $(4.23)(1.6)$
- $6 + 18 \div (-3)$
- Evaluate: $4v^3$ when
 $v = -5$
- Simplify: $\frac{5}{30}$
- Solve: $\frac{15}{10} = \frac{3}{k}$
- Write $\frac{5}{8}$ as a decimal
- Solve: $u - 18.4 = 39$
- Solve: $\frac{d}{10} - 20 = 16$
- Find the GCF and LCM of 8 and 20
- Simplify: $2^3 \cdot 3 \cdot 5^2$
- Estimate (to the nearest dollar): $\$7.91 - \2.05
- Find the area and perimeter of a right triangle having legs of 3 cm and 4 cm and a hypotenuse of 5 cm
- Write an algebraic expression for “the quotient of 5 and x”
- 20% of what is 14?
- Simplify: $\sqrt{49} - \sqrt{25}$
- Simplify: $25 - 2(3)^2$
- Solve: $\frac{x-6}{3} = -12$
- Place the following *Real* numbers in order from least to greatest.
 $\{-\frac{3}{4}, \frac{-4}{3}, 1, \frac{3}{4}, 0\}$
- What is the “rule” to see if a number is divisible by nine?

Set 3

- Multiply: $1\frac{3}{7} \cdot 2\frac{4}{5}$
- Divide: $27 \div 0.3$
- Simplify: $\frac{5(6-2)}{2(4+3)}$
- Simplify: $2^3 + |7-9|$
- Simplify: $\frac{56}{84}$
- At 60 mph a car travels 88 feet per second. How many feet per second does a car travel at 15 mph?
- Write 60% as a fraction
- Solve: $\frac{m}{5} = 30$
- Solve: $5x - 1.5 = 0$
- Find the GCF and LCM of 6 and 9
- Write the prime factorization of 120
- Estimate 39.46 to the nearest integer
- Find the area and circumference of a circle with radius 5 cm. (use $\pi \approx 3.14$)
- Write an algebraic expression for “x subtracted from 8”
- 6 is what percent of 4?
- Simplify: $\frac{\sqrt{36}}{\sqrt{4}}$
- Simplify: $3 + 9^2 \div 3$
- Solve: $3n - 7 = -19$
- Place the following *Real* numbers in order from least to greatest:
 $\{-1.2, 3.5, \frac{-4}{5}, \frac{1}{2}, -\frac{6}{3}\}$
- How many factors does 24 have?