

All Saints School
Summer Math Study Guide
Entering Grade 8

Name _____

Date _____

Listed below are the general topic categories that will appear on your Math Placement Test in August. Sample problems are provided to the right of each category.

Category

Addition, subtraction, multiplication, and division of whole numbers

Sample Problems

$1234 + 987 + 506$
 $987 - 1234 - 506$
 $1234 \times 987 \times 506$
 $1234 \div 987$

Addition, subtraction, multiplication, and division of decimals

$1.234 + 0.987 + 50.6$
 $1.234 - 0.987 - 0.506$
 $12.34 \times 0.0987 \times 5.06$
 $123.4 \div 98.7$

Addition, subtraction, multiplication, and division of fractions

$1\frac{1}{2} + 3\frac{4}{5}$

Be able to also subtract, multiply, and divide the above mixed numbers.

Solving one-step equations

$x + 2 = 7$
 $x - 7 = -15$
 $3x = -15$
 $-12x = 4$
 $\frac{1}{2}x = 7$

Solving more complex equations

$$2x - 7 = 3 - 7x$$
$$\frac{x}{4} + 8 = -15(x - 3)$$

Solving inequalities

$$x - 4 < 5x + 26$$
$$2x \geq x - 29$$

Addition and subtraction of negatives

$$-2 - (-7) = ?$$
$$-5 - 8 = ?$$
$$5 - 8 = ?$$

Multiplication and division of negatives

$$-12 \times (-7) = ?$$
$$-10 \div 200 = ?$$

Fractions, decimals, percents

$$0.52 = \underline{\quad}\% = ? \text{ (fraction)}$$

Graphing equations

$$-x + y = 4$$
$$y = 3x - 2$$

All problems may vary in complexity, but carry the same weight. Be sure to allow adequate study time this summer and to utilize the free tools on the web as discussed in class! Your testing day will occur during the first week of school.