

IMMACULATE CONCEPTION HIGH SCHOOL
ALGEBRA I ENHANCED
SUMMER REVIEW

This packet contains problems that we as a mathematics department feel you should know from previous math courses. It is important that you review these problems as they will appear throughout this course. We feel this will give you an advantage when beginning Algebra I and it will guide your teacher as to what you know and what you may need extra help on.

This packet must be completed prior to the beginning of the school year. It is recommended that you begin working on this review early August so the material stays more current with you. Do your best on these problems, look in old math books or old notes to help guide you. All work must be shown when working each problem. **Calculators are not allowed!** It is very important that you practice your basic skills without a calculator. We will spend the first couple of weeks of school going over these problems. You will be tested on this material and you will not be allowed to use a calculator. Calculators will be used throughout the course where the teacher finds it necessary. All arithmetic operations must be done mentally.

MUST SHOW ALL WORK

Part 1: Fractions and percents

I. Simplify the following.

1.
$$\begin{array}{r} 24,397 \\ +18,274 \\ \hline \end{array}$$

2. $34.6 - 2.53$

3.
$$\begin{array}{r} 2,358 \\ \times 147 \\ \hline \end{array}$$

4. $4862 \div 55$

5. 2.6×0.7

6. $4.95 \div 0.5$

7. $\frac{1}{3} + \frac{4}{9}$

8. $5\frac{1}{3} - 2\frac{1}{4}$

9. $2\frac{1}{3} \times 1\frac{3}{4}$

11. $-7\left(\frac{6}{35}\right)$

10. $\frac{3}{4} \div \frac{4}{5}$

12.
$$\frac{8}{4} - \frac{8}{5}$$

II. Convert the following to a decimal.

13. $\frac{8}{15}$

14. 24%

III. Convert the following to a fraction.

15. 0.005

16. 65%

VI. Convert the following to a percent.

17. $\frac{37}{100}$

18. 0.38

V. Solve the percent problems.

19. 35% of 64 is what number?

20. 14 is 16% of what number?

21. Nineteen is what percent of 76?

Part 2: Real Numbers

I. Evaluate the following expressions when $x = 4$

1. $\frac{x}{12}$

2. $x - 8$

3. $6x$

II. Find the value of each exponential expression.

4. 2^3

5. $(-3)^2$

III. Use order of operations to evaluate the following expressions.

6. $6 \div 3 + 2 \cdot 7$

7. $6(5 - 3)^2 + 3$

IV. Translate each verbal phrase or sentence into a mathematical expression or equation. Use x to represent the unknown number.

8. Twenty-nine decreased by a number

9. Quotient of a number and 5

10. The product of 14 and a number is one.

11. Nine is three times a number.

V. Find the sum or the difference of the following.

12. $-4 + 5$

13. $-10 + 7$

14. $-2 + -5$

15. $2 - (-4) - 7$

16. $6 - 13$

17. $4 + -3 - (-5)$