



ST. FRANCIS  
DE SALES  
CATHOLIC SCHOOL

**Summer Math Packet**  
**For**  
**Students entering 7th grade** *Pre-Algebra*

Please have your student complete this packet and return it the first day of school next fall.

- The packet must be hole-punched and put into a 3-clasped folder.
- The student name must be written on the front of the folder.
- ALL WORK MUST BE SHOWN FOR FULL CREDIT. (Extra paper may be used for work.)
- Packets are due on September 5. (Each day the packet is late will result in a 10% deduction from the grade.)
- The packet will be graded and will count as a quiz grade.
- No packets will be accepted after Friday, September 8.



Find the mean, median, mode and range of the data sets:

1. 31, 20, 31, 51, 27

Mean:

Median:

Mode:

Range:

2. 20, 5, 45, 90, 60, 45, 30, 10, 30, 45, 15, 25

Mean:

Median:

Mode:

Range:

Section III

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

Solve each equation for  $x$ .

1)  $x + 8 = 15$

2)  $x - 1,078 = 4,562$

3)  $5.6 + x = 7$

4)  $x - 2.16 = 3.9$

5)  $78x = 4,368$

6)  $x \div 4 = 32$

7)  $1.2x = 3$

8)  $7.2 = x \div 15$

Simplify each expression:

1.  $3^2 + 2^3$

2.  $(15 - 1) - 3^2$

3. Find the prime factorization of 28.

4. Find the GCF of 16 and 40.

5. Find the LCM of 10, 20 and 35.

Simplify each fraction.

6.  $\frac{5}{20}$

6.  $\frac{4}{6}$

7.  $\frac{15}{45}$

8.  $\frac{72}{90}$

Rewrite each improper fraction as a mixed number.

9.  $\frac{13}{3}$

10.  $\frac{58}{6}$

Rewrite each mixed number as an improper fraction.

11.  $4\frac{2}{3}$

12.  $8\frac{1}{5}$

## Section V

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

Find each sum or difference. Write your answer in simplest form.

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

2.  $\frac{11}{13} - \frac{7}{13}$

3.  $\frac{9}{20} + \frac{4}{5}$

4.  $\frac{3}{4} - \frac{3}{8}$

5.  $3\frac{3}{4} - 2\frac{8}{10}$

6.  $8\frac{1}{5} + 4\frac{1}{6}$

Solve each equation for  $x$ .

7.  $x - \frac{4}{5} = \frac{11}{20}$

8.  $\frac{6}{9} = \frac{1}{3} + x$

9.  $4\frac{3}{4} + x = 17\frac{1}{8}$

10.  $13\frac{2}{3} = x - 10\frac{7}{9}$

Multiply. Write your answer in simplest form.

1.  $\frac{3}{8} \times 32$

2.  $\frac{5}{6} \times \frac{12}{25}$

3.  $\frac{7}{9} \times 5\frac{4}{7}$

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

Divide. Write your answer in simplest form.

5.  $15 \div \frac{9}{11}$

6.  $\frac{2}{5} \div \frac{8}{25}$

7.  $\frac{5}{7} \div 25$

8.  $6\frac{3}{4} \div 4\frac{1}{2}$

Solve each proportion.

1.  $\frac{4}{5} = \frac{x}{25}$

2.  $\frac{6}{4} = \frac{9}{x}$

3.  $\frac{x}{25} = \frac{3}{10}$

Write each percent as a **decimal** AND as a **fraction**.

4. 25%

5. 6%

Find each percent.

6. 2% of 50

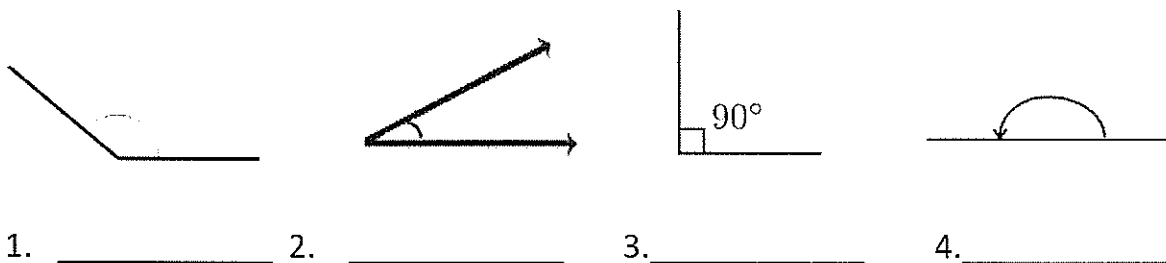
7. 80% of 8

8. Suppose you buy a DVD for \$12.98. The sales tax is 7%. Find your total cost.



Section VIII

Classify each angle as acute, right, obtuse, or straight.



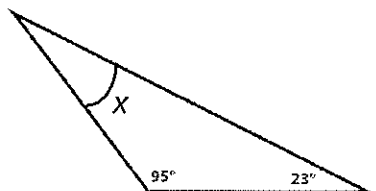
Find the complement and supplement of each angle measure.

5.  $72^\circ$  complement: \_\_\_\_\_ supplement: \_\_\_\_\_

Match the type of triangle with its definition.

- |                |                                      |
|----------------|--------------------------------------|
| 6. Scalene     | a. a triangle with two equal sides   |
| 7. Isosceles   | b. a triangle with three equal sides |
| 8. Equilateral | c. a triangle with no equal sides    |

Find the missing angle measure,  $x$ .



9.  $x =$  \_\_\_\_\_

Section IX

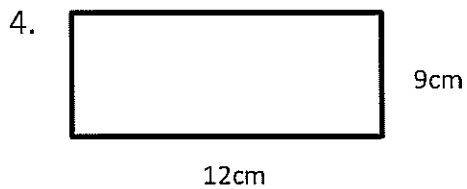
Convert each measurement.

1. 672 mm to cm.

2. 25,040 mL to L.

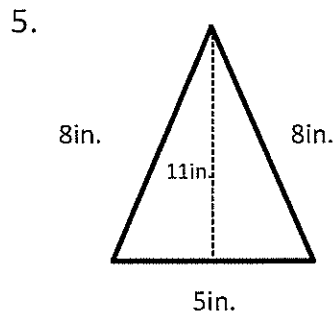
3. 35.1 kg to g.

Find the perimeter and area of each figure.



P = \_\_\_\_\_

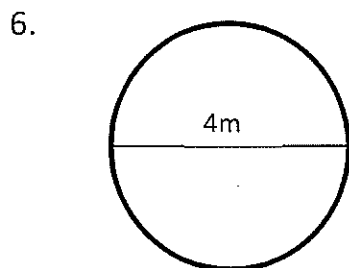
A = \_\_\_\_\_



P = \_\_\_\_\_

A = \_\_\_\_\_

Find the circumference and area of the circle.



C = \_\_\_\_\_

A = \_\_\_\_\_

## Rising Pre-Algebra 7

### Section X.

1.

A ranch has 132 cows. You pick 32 of them at random and find that 18 of those cows have spots. Predict the number of cows on the ranch that have spots.

2.

**A bag contains 4 red, 4 blue, and 3 green cubes. Cubes are drawn twice with replacement. Find each probability.**

8.  $P(\text{blue, then green})$

9.  $P(\text{both red})$

10.  $P(\text{both green})$

11.  $P(\text{red, then blue})$

### Section XI.

1.  $9 + (-2)$

2.  $-13 + 6$

3.  $-7 + (-5)$

4.  $-2 - 8$

5.  $-3 - (-3)$

6.  $3 - 9$

7.  $5 \cdot (-4)$

8.  $-3(-6)$

9.  $-2 \cdot 7$

10.  $\frac{9}{-3}$

11.  $-5 \div (-5)$

12.  $-12 \div 4$

## Section XII.

Solve each equation. Check the solution.

1.  $4u + 7 = 35$

2.  $6r - 4 = 20$

3.  $\frac{f}{3} + 5 = 20$

4.  $\frac{h}{8} - 2 = -1$