



## *Incoming Pre-Algebra Course Summer Packet*

Each week this summer please complete two pages of the following review sheets. Please show as much work as you can for each problem. This will help if you are asked how you got the answer. These review sheets will be collected on the first day of school. You may get help from your parents, but do not use a calculator. Doing these review sheets will help you prepare for the pre-algebra class. Students who complete the summer packet will get a Principal's Surprise during the first week of school.

Have a great summer!! See you soon!

~Mrs. Thangaraj

Name \_\_\_\_\_

## Summer Review - Week # 1

*Please show any work you have done to complete each problem.*

Write the place value of the underlined digit. Complete problems 1-8.

**Example: 23.456      4 tenths**

1. 4.567296 \_\_\_\_\_

2. 23.486 \_\_\_\_\_

3. 3.05423 \_\_\_\_\_

4. 8,456.68 \_\_\_\_\_

5. 953,023 \_\_\_\_\_

6. 8.9723 \_\_\_\_\_

Multiple Choice: Circle the correct answer.

7. What is the value of the underlined digit in the number 7.0878?

- a. 8 hundreds
- b. 8 thousandths
- c. 8 tenths
- d. 8 hundredths

8. Which number is in the ten-thousands place in the number 2,130,629.4758?

- a. 6
- b. 1
- c. 3
- d. 2

## **Rounding whole numbers and decimals.**

1. Round 42,398.567296

a. to the nearest ten-thousandth

\_\_\_\_\_

b. to the nearest whole number

\_\_\_\_\_

c. to the nearest thousandth

\_\_\_\_\_

2. Round to the nearest cent.

a. \$423.486

\_\_\_\_\_

b. \$8,456.6888

\_\_\_\_\_

c. \$58.9999

\_\_\_\_\_

d. \$58.723

\_\_\_\_\_

Add, subtract, multiply or divide.

1.  $23 + 408 + 7 + 1,235 =$  \_\_\_\_\_

2.  $3,006 - 2,547 =$  \_\_\_\_\_

3.  $57,060 \div 12 =$  \_\_\_\_\_

4.  $1,042 \times 89 =$  \_\_\_\_\_

## Summer Review - Week # 2

*Please show any work you have done to complete each problem.*

**Add, subtract, multiply, or divide decimals and fractions.** (Line up decimal places properly and annex zeros, if needed, before you add or subtract.)

1.  $6.53 + .005 + 26.008$  \_\_\_\_\_

2.  $4.59 - 0.399$  \_\_\_\_\_

3.  $7.06 - 5.4$  \_\_\_\_\_

4.  $28.43 + 0.002 + 1.9$  \_\_\_\_\_

5.  $0.095 \times 0.4$  \_\_\_\_\_

6.  $28.9 \times 0.103$  \_\_\_\_\_

7.  $3.941 \div 0.07$  \_\_\_\_\_

8.  $0.3784 \div 1.1$  \_\_\_\_\_

**Multiply and divide by powers of ten.**

To **multiply**, move the decimal places to the **right** as many places as there are zeros in the power of ten. To **divide**, move the decimal places to the **left** as many places as there are zeros in the power of ten.

1.  $0.0345 \times 10,000$  \_\_\_\_\_

2.  $12.5 \times 1,000$  \_\_\_\_\_

3.  $13.9 \div 100$  \_\_\_\_\_

4.  $30.035 \times 100,000$  \_\_\_\_\_

5.  $0.0921 \div 10$  \_\_\_\_\_

6.  $9.745 \times 100$  \_\_\_\_\_

7.  $846 \div 10,000$  \_\_\_\_\_

8.  $437 \times 1,000$  \_\_\_\_\_

9.  $8.0345 \times 10,000$  \_\_\_\_\_

10.  $12.345 \div 100,000$  \_\_\_\_\_

11.  $0.0003 \times 100,000$  \_\_\_\_\_

12.  $1.0895 \div 10,000$  \_\_\_\_\_

13.  $5.4 \times 10,000$  \_\_\_\_\_

## Summer Review - Week #

*Please show any work you have done to complete each problem.*

Write each improper fraction as a mixed number.

1.  $\frac{51}{4}$  \_\_\_\_\_      2.  $\frac{85}{6}$  \_\_\_\_\_      3.  $\frac{141}{8}$  \_\_\_\_\_

Write each mixed number as an improper fraction.

1.  $7\frac{2}{5}$  \_\_\_\_\_      2.  $21\frac{1}{10}$  \_\_\_\_\_      3.  $3\frac{4}{7}$  \_\_\_\_\_

Compare using =, <, or >.

1.  $\frac{7}{9}$  \_\_\_\_\_  $\frac{5}{7}$       2.  $\frac{8}{13}$  \_\_\_\_\_  $\frac{3}{4}$       3.  $\frac{5}{15}$  \_\_\_\_\_  $\frac{8}{20}$       4.  $\frac{2}{3}$  \_\_\_\_\_  $\frac{8}{12}$

Add fractions and mixed numbers. Remember to simplify your answer by reducing to lowest terms or writing as a mixed number.

1.  $\frac{7}{9} + \frac{5}{9} =$  \_\_\_\_\_

6.  $\frac{8}{9} + \frac{5}{18} =$  \_\_\_\_\_

2.  $\frac{4}{7} + \frac{1}{3} =$  \_\_\_\_\_

7.  $\frac{11}{15} + \frac{13}{25} =$  \_\_\_\_\_

3.  $20\frac{3}{8} + 14\frac{1}{2} =$  \_\_\_\_\_

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

4.  $18\frac{1}{7} + 12\frac{3}{7} =$  \_\_\_\_\_

9.  $2\frac{1}{10} + 1\frac{4}{5} =$  \_\_\_\_\_

5.  $\frac{7}{20} + \frac{5}{12} =$  \_\_\_\_\_

10.  $\frac{1}{4} + \frac{1}{15} =$  \_\_\_\_\_

Subtract fractions and mixed numbers. Remember to simplify your answer by reducing to lowest terms or writing as a mixed number.

1.  $\frac{7}{9} - \frac{5}{9} =$  \_\_\_\_\_

6.  $\frac{8}{9} - \frac{5}{18} =$  \_\_\_\_\_

2.  $\frac{4}{7} - \frac{1}{3} =$  \_\_\_\_\_

7.  $\frac{11}{15} - \frac{9}{25} =$  \_\_\_\_\_

3.  $20\frac{3}{8} - 14\frac{1}{2} =$  \_\_\_\_\_

8.  $6\frac{1}{4} - 1\frac{5}{6} =$  \_\_\_\_\_

4.  $18\frac{1}{7} - 12\frac{3}{7} =$  \_\_\_\_\_

9.  $2\frac{1}{10} - 1\frac{4}{5} =$  \_\_\_\_\_

5.  $\frac{9}{20} - \frac{5}{12} =$  \_\_\_\_\_

10.  $\frac{1}{4} - \frac{1}{15} =$  \_\_\_\_\_

Multiply fractions and mixed numbers.

1.  $\frac{7}{9} \times \frac{18}{49} =$  \_\_\_\_\_

6.  $\frac{8}{9} \times \frac{5}{18} =$  \_\_\_\_\_

2.  $\frac{4}{7} \times \frac{1}{5} \times \frac{7}{16} =$  \_\_\_\_\_

7.  $\frac{3}{5} \times \frac{7}{12} \times \frac{25}{28} =$  \_\_\_\_\_

3.  $2\frac{5}{6} \times 4\frac{1}{2} =$  \_\_\_\_\_

8.  $2\frac{1}{4} \times 18 =$  \_\_\_\_\_

4.  $\frac{3}{10} \times 25 =$  \_\_\_\_\_

9.  $2\frac{1}{10} \times 1\frac{4}{7} =$  \_\_\_\_\_

5.  $\frac{7}{20} \times \frac{5}{12} =$  \_\_\_\_\_

10.  $\frac{1}{4} \times \frac{1}{15} =$  \_\_\_\_\_

## Summer Review - Week #

*Please show any work you have done to complete each problem.*

Divide fractions and mixed numbers.

1.  $\frac{5}{9} \div \frac{1}{3} =$  \_\_\_\_\_

6.  $\frac{8}{9} \div \frac{5}{18} =$  \_\_\_\_\_

2.  $\frac{4}{7} \div \frac{8}{11} =$  \_\_\_\_\_

7.  $\frac{3}{5} \div \frac{12}{125} =$  \_\_\_\_\_

3.  $4\frac{1}{6} \div 2\frac{2}{5} =$  \_\_\_\_\_

8.  $2\frac{1}{4} \div 18 =$  \_\_\_\_\_

4.  $\frac{3}{10} \div 25 =$  \_\_\_\_\_

9.  $2\frac{1}{10} \div 1\frac{1}{2} =$  \_\_\_\_\_

5.  $\frac{7}{20} \div \frac{3}{10} =$  \_\_\_\_\_

10.  $3\frac{1}{4} \div \frac{13}{16} =$  \_\_\_\_\_

Write the fraction-decimal-percent equivalents.

Fraction	Decimal	Percent
$\frac{1}{2}$		
		25%
$\frac{3}{4}$		
	.2	



$\frac{2}{5}$		
		60%
$\frac{4}{5}$		

Find the area of the following shapes:

1. Rectangle: \_\_\_\_\_

Length = 5 ft

Width = 3 ft

2. Square: \_\_\_\_\_

Side = 20 ft

3. Circle: \_\_\_\_\_

Radius = 10 in.

4. Parallelogram: \_\_\_\_\_

Base = 6 ft

Height = 4 ft

5. Triangle: \_\_\_\_\_

Base = 5 ft

Height = 4 ft

6. Circle: \_\_\_\_\_

Diameter = 8 in. (Remember to find the radius first!!)

## Summer Review - Week #

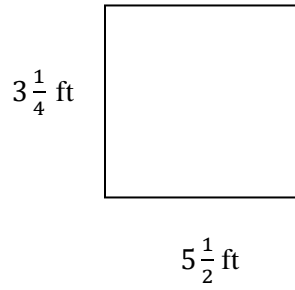
*Please show any work you have done to complete each problem.*

Write the fraction-decimal-percent equivalents.

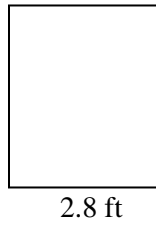
Fraction	Decimal	Percent
$\frac{1}{3}$		
		$66\frac{2}{3}\%$
$\frac{1}{6}$		
$\frac{5}{6}$		
	.125	
$\frac{3}{8}$		
$\frac{5}{8}$		
		$87\frac{1}{2}\%$

Find the perimeter / circumference of the following shapes:

7. Rectangle: \_\_\_\_\_

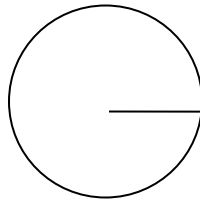


8. Square: \_\_\_\_\_

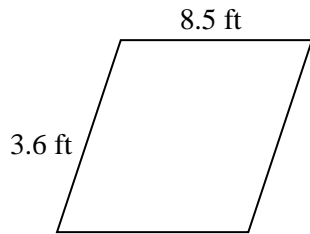


9. Circle: \_\_\_\_\_

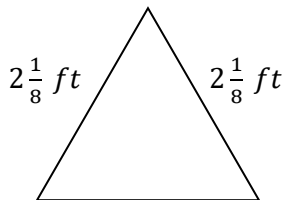
Radius = 7 in.



10. Parallelogram: \_\_\_\_\_



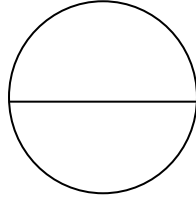
11. Triangle: \_\_\_\_\_



$$2\frac{1}{8} \text{ ft}$$

12. Circle: \_\_\_\_\_

Diameter = 6 in



## Summer Review - Week # 6

*Please show any work you have done to complete each problem.*

Order of Operations:

Remember: PEMDAS (Parenthesis first, exponents second, multiplication and division from left to right, third, and addition and subtraction from left to right, last)

1)  $24 \div 2 \cdot 3$

2)  $3 + 4 - 2$

3)  $33 - 9 \cdot 3$

4)  $5 + 4 \cdot 9$

5)  $(25 - 10) \div (2 + 3)$

6)  $\frac{4(2+3)}{13-10 \div 2}$

7)  $2 \cdot (4 + 3)^2$

8)  $4^3 + 2 \cdot 2$

9)  $4 + 9 \cdot 3^2$

10)  $54 - 2 \cdot 3$

Write the fraction-decimal-percent equivalents.

Fraction	Decimal	Percent
$2 \frac{1}{4}$		
		$8 \frac{3}{4} \%$
$3 \frac{3}{8}$		
$\frac{7}{20}$		
		15%
		$7 \frac{3}{8} \%$
$1 \frac{1}{4}$		

Solve the following percent problems.

1. Find 6% of 360. \_\_\_\_\_

Hint: Multiply

2. Find what percent 25 is of 40. \_\_\_\_\_

Hint: Divide

12 is 20% of what number? \_\_\_\_\_ Hint: Divide

## Summer Review - Week #

*Please show any work you have done to complete each problem.*

Solve the following equations. Show all of your work.

1)  $x + 5 = 12$

2)  $x - 8 = 20$

3)  $\frac{x}{9} = 3$

4)  $7x = 21$

5)  $3x - 6 = 9$

6)  $4x + 2 = 10$

7)  $7x = 56$

8)  $2x - 7 = 3$

9)  $13x + 8 = 21$

10)  $\frac{x}{4} - 2 = 6$

11)  $\frac{x}{8} = \frac{3}{12}$

12)  $\frac{8}{15} = \frac{x}{9}$

13)  $\frac{x}{3} + 2 = 5$

**Graph and label each ordered pair on the coordinate plane.**

Remember, the first number in an ordered pair is the x-value, and the second number is the y- value.

1) Find 18 ½ % of 200.

1) A (3, 5)

2) B (-2, 5)

3) C ( 2, -3)

4) D (3, 6)

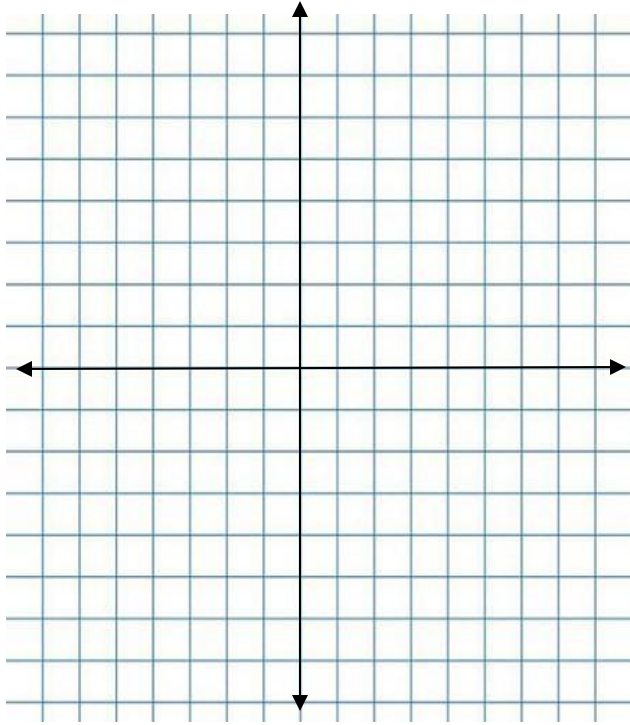
5) E (6, 0)

6) F (-1, -4)

7) G ( 0, -5)

8) I (1, 1)

Solve the following:



2) 5 is what percent of 60?

3) 12 is 20% of what number?

## Summer Review - Week # 8

*Please show any work you have done to complete each problem.*

Convert the following measures:

1) 3ft. = \_\_\_\_\_ in.

2)  $\frac{1}{4}$ ft. = \_\_\_\_\_ in.

3) 6 in. = \_\_\_\_\_ ft.



4) 1 gal. = \_\_\_\_\_ qt.

5) 5 gal. = \_\_\_\_\_ qt.

6)  $\frac{1}{2}$  gal. = \_\_\_\_\_ qt.

7) 12 qt. = \_\_\_\_\_ gal.

8) 7 qt. = \_\_\_\_\_ gal.

9) 6 lb. = \_\_\_\_\_ oz.

10)  $\frac{3}{4}$  lb. = \_\_\_\_\_ oz.

11) 6 oz. = \_\_\_\_\_ lb.

12) 2 bu. = \_\_\_\_\_ pk.

13) 5 pk. = \_\_\_\_\_ bu.

14) 5 pt. = \_\_\_\_\_ fl. oz.

Add, subtract, or multiply compound measures:

1) 9 hr. 6 min.  
4 hr. 5 min.  
+ 8 hr. 9 min.  
\_\_\_\_\_

2) 25 lb.  
\_ 7 lb. 7 oz.  
\_\_\_\_\_

3) 8 gal. 2 qt.  
× 9  
\_\_\_\_\_

4) 8 pk. 3 qt.  
\_ 3 pk. 5 qt.

5) 3 lb. 13 oz.  
+ 4 lb. 12 oz.

6) 7 hr. 45 min.  
× 4

\_\_\_\_\_

Convert the following temperatures to the given temperature scales:

Formulas:

$$C = \frac{5}{9} \times (F - 32) ; F = \frac{9}{5} \times C + 32$$

1)  $45^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

2)  $28^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

3)  $56^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

4)  $77^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$