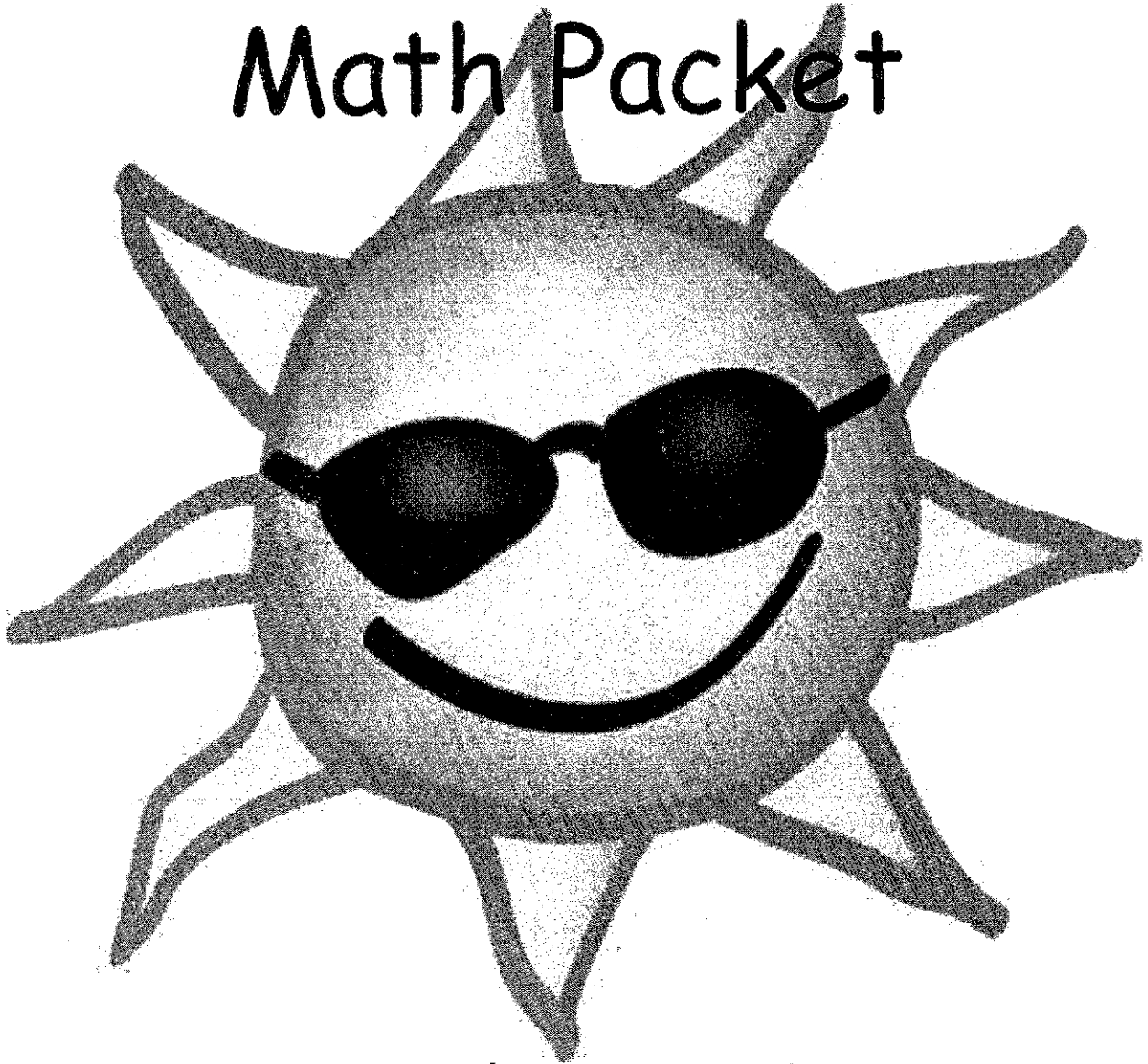


# Summer Math Packet



For students entering:

Math 6

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

Concepts students should know before entering 6<sup>th</sup> Grade.

Students should be advanced at these concepts:

Directions: Complete the following problems. NO CALCULATOR!

$$\begin{array}{r} 19 \\ 4 \overline{)76} \\ \underline{-4} \phantom{0} \\ 36 \\ \underline{-36} \\ 0 \end{array}$$

$$2 \overline{)42}$$

$$10 \overline{)110}$$

$$12 \overline{)132}$$

$$8 \overline{)16}$$

$$2 \overline{)80}$$

$$9 \overline{)36}$$

$$6 \overline{)42}$$

$$2 \overline{)144}$$

$$2 \overline{)114}$$

$$2 \overline{)70}$$

$$6 \overline{)102}$$

Long Division

Directions: Complete the following problems. NO CALCULATOR! SHOW ALL WORK!!

<p>1.</p> $\begin{array}{r} 619 \\ 5 \overline{)3,095} \\ \underline{-30} \phantom{0} \\ 09 \phantom{0} \\ \underline{-5} \phantom{0} \\ 45 \phantom{0} \\ \underline{-45} \\ 0 \end{array}$	<p>2.</p> $3 \overline{)1,530}$	<p>3.</p> $12 \overline{)6,036}$
<p>4.</p> $9 \overline{)4,581}$	<p>5.</p> $7 \overline{)5,425}$	<p>6.</p> $8 \overline{)7,424}$
<p>7.</p> $3 \overline{)2,424}$	<p>8.</p> $11 \overline{)2,288}$	<p>9.</p> $6 \overline{)5,442}$
<p>10.</p> $8 \overline{)5,656}$	<p>11.</p> $3 \overline{)1,560}$	<p>12.</p> $4 \overline{)3,204}$

## Order of Operation

Directions: Simplify the following. Remember your PEMDAS rules!

### PEMDAS Rules

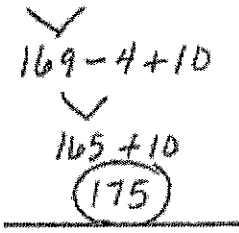
Evaluate the problem in the following order:

- 1) P - Parentheses
- 2) E - Exponents ( Powers and Square Roots )
- 3) MD - Multiplication and Division ( Left to Right )
- 4) AS - Addition and Subtraction ( Left to Right )

You can remember the order by saying :

Please Excuse My Dear Aunt Sally

a	x	u	i	d	u
r	p	l	v	d	b
e	n	t	i	i	t
n	e	l	s	t	r
t	e	p	i	l	a
h	n	l	o	o	c
e	t	i	n	n	t
s	s	c			i
e		a			o
s		t			n
		i			
		o			
		n			

$13 \times 13 - 4 + 10$ 	1. $18 - 11 + 19 \times 3$
2. $24 \div 8 \times 11 + 3$	3. $2 + 11 \times 17 - 12$
4. $9 + 4 \times 12 + 15$	5. $16 \times 3 - 2 + 3$
6. $16 + 9 - 10 \div 5$	7. $16 \div 2 + 19 - 16$

Directions: Simplify the following. Remember your PEMDAS rules!

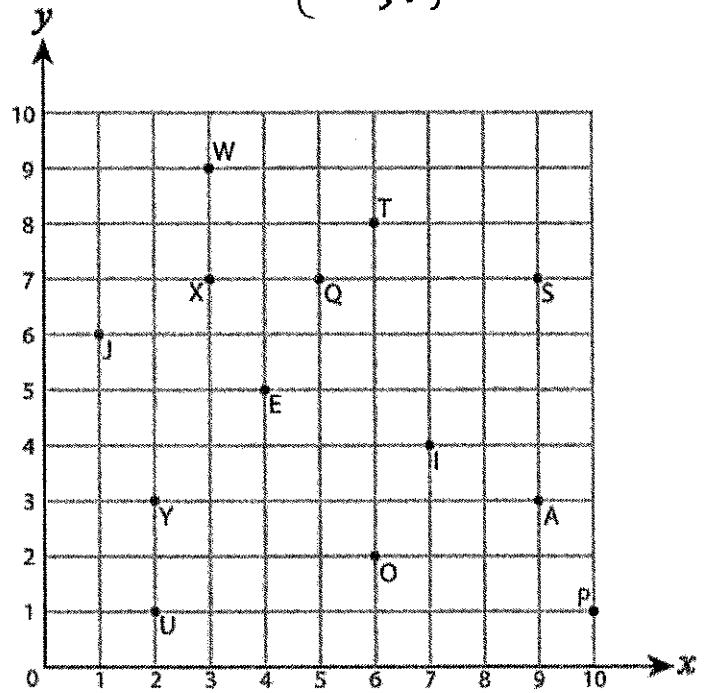
$7 \times (5 \times 10 + 4) - 7$ $7 \times (50 + 4) - 7$ $7 \times 54 - 7$ $378 - 7$ $\textcircled{371}$	1. $(8 + 23 - 3) \div (13 - 6)$
2. $(15 - 3) \times (10 + 3) - 4$	3. $(16 + 4) + (11 + 15 \div 5)$
4. $(14 + 29 - 3) \div 20 - 2$	5. $(15 + 18 - 3) \div (15 \times 2)$
6. $(8 + 4) + (10 + 14 \div 7)$	7. $(12 + 22 - 2) + 16 - 2$

# Coordinate System

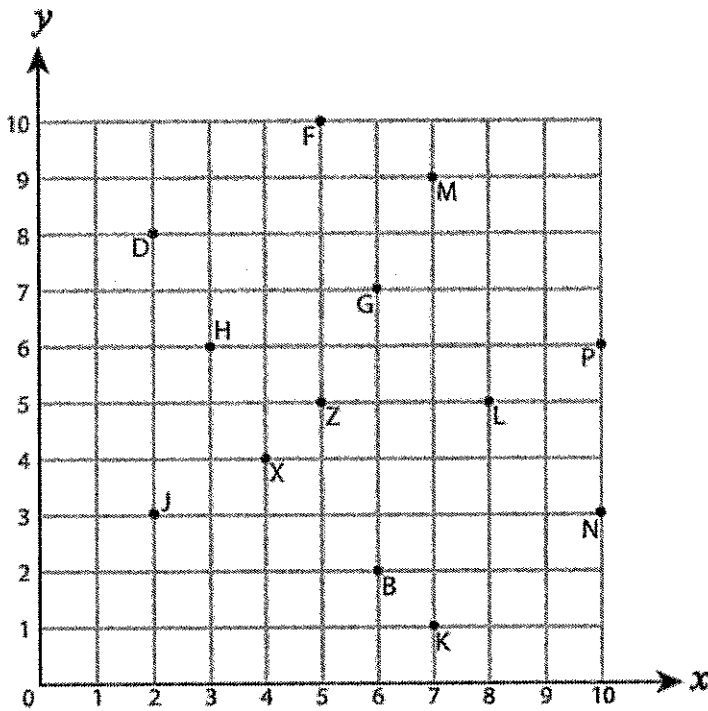
Directions: Write the point that is located at each ordered pair.

$(x, y)$   
 $(\leftarrow, \downarrow)$

- |                     |                     |
|---------------------|---------------------|
| 1) (6, 2) <u>0</u>  | 2) (6, 8)    _____  |
| 3) (10, 1)    _____ | 4) (4, 5)    _____  |
| 5) (9, 7)    _____  | 6) (2, 3)    _____  |
| 7) (1, 6)    _____  | 8) (5, 7)    _____  |
| 9) (2, 1)    _____  | 10) (7, 4)    _____ |



Directions: Write the ordered pair for each point.



- |                                |                    |
|--------------------------------|--------------------|
| 11) N ( <u>10</u> , <u>3</u> ) | 12) X (____, ____) |
| 13) B (____, ____)             | 14) L (____, ____) |
| 15) Z (____, ____)             | 16) P (____, ____) |
| 17) D (____, ____)             | 18) M (____, ____) |
| 19) J (____, ____)             | 20) H (____, ____) |

# Adding & Subtracting Decimals

Directions: Solve the following. **DO NOT USE A CALCULATOR!!**

## Example 1 Add Decimals

Find the value of  $3.9 + 2.45$ .

**STEP 1** Rewrite the problem vertically in order to align the decimal points in each number. Add a zero to 3.9 as a placeholder.

$$\begin{array}{r} 3.90 \\ + 2.45 \\ \hline \end{array}$$

**STEP 2** Begin by adding the digits in the hundredths place.

$$\begin{array}{r} 3.90 \\ + 2.45 \\ \hline 5 \end{array}$$

**STEP 3** Add the digits in the tenths place. Since  $9 + 4 = 13$ , regroup 10 tenths as 1 one.

$$\begin{array}{r} 3.90 \\ + 2.45 \\ \hline 35 \end{array}$$

**STEP 4** Place the decimal point in the answer. Add the digits in the ones place.

$$\begin{array}{r} 3.90 \\ + 2.45 \\ \hline 6.35 \end{array}$$

$3.9 + 2.45 = 6.35$

## Example 2 Subtract Decimals

Find the value of  $8.6 - 4.55$ .

**STEP 1** Rewrite the problem vertically in order to align the decimal points in each number. Add a zero to 8.6 as a placeholder.

$$\begin{array}{r} 8.60 \\ - 4.55 \\ \hline \end{array}$$

**STEP 2** Begin by subtracting the digits in the hundredths place. Regroup 1 tenth as 10 hundredths so that you can subtract.

$$\begin{array}{r} 8.60 \\ - 4.55 \\ \hline 5 \end{array}$$

**STEP 3** Subtract the digits in the tenths place.

$$\begin{array}{r} 8.60 \\ - 4.55 \\ \hline 05 \end{array}$$

**STEP 4** Place the decimal point in the answer. Subtract the digits in the ones place.

$$\begin{array}{r} 8.60 \\ - 4.55 \\ \hline 4.05 \end{array}$$

$8.6 - 4.55 = 4.05$

1. $4.59 + 1.02$	2. $9.04 - 6.32$	3. $5.8 + 0.26$
4. $6.5 - 3.7$	5. $0.4 + 8.61$	6. $3.28 - 1.09$
7. $5.7 + 4.63$	8. $6.3 - 2.99$	9. $8.07 + 0.86$
10. $7.2 - 5.98$	11. $7.02 + 7.3$	12. $5.33 - 2.68$

Name \_\_\_\_\_

Date \_\_\_\_\_

## **Multiplying and Dividing Decimals**

*Find the product or quotient. Show ALL work in the space provided or on a separate piece of paper.*

1)  $3.94 \cdot 0.4$

2)  $0.144 \div 12$

3)  $0.587 \cdot 8$

4)  $40.8 \div 2$

*Read each problem carefully. Show ALL work in the space provided or on a separate piece of paper.*

5) A deli charges \$3.45 for a pound of turkey. If Tim wants to purchase 2.4 pounds, how much will it cost?



6) The average mail carrier walks 4.8 kilometers in a workday. How far do most mail carriers walk in a 6-day week? There are 27 working days in July, so how far will a mail carrier walk in July?

7) Anna is saving \$6 a week to buy a computer game that costs \$57.12. How many weeks will she have to save to buy the game?

8) Ben ran a 19.6-mile race last Saturday. His average speed during the race was 7 miles per hour. How long did it take Ben to finish the race?

9) Antonio bought 4.5 pounds of cashews. They cost \$1.40 per pound. How much did Antonio pay in total for the cashews?

Mixed Numbers & Improper Fractions

Directions: Convert the following improper fractions to mixed numbers. Write your answer on the line next to each problem.

1) $\frac{9}{4} = 2\frac{1}{4}$	6) $\frac{11}{5} =$ _____	11) $\frac{71}{10} =$ _____
2) $\frac{82}{9} =$ _____	7) $\frac{61}{6} =$ _____	12) $\frac{29}{7} =$ _____
3) $\frac{31}{5} =$ _____	8) $\frac{7}{3} =$ _____	13) $\frac{55}{6} =$ _____
4) $\frac{13}{3} =$ _____	9) $\frac{50}{7} =$ _____	14) $\frac{21}{10} =$ _____
5) $\frac{29}{7} =$ _____	10) $\frac{17}{4} =$ _____	15) $\frac{25}{4} =$ _____

Directions: Convert the following improper fractions to mixed numbers. Write your answer on the line next to each problem.

1) $5\frac{1}{3} = \frac{16}{3}$	6) $2\frac{1}{2} =$ _____	11) $9\frac{1}{5} =$ _____
2) $2\frac{1}{8} =$ _____	7) $3\frac{1}{4} =$ _____	12) $6\frac{1}{2} =$ _____
3) $3\frac{1}{4} =$ _____	8) $6\frac{1}{10} =$ _____	13) $5\frac{4}{9} =$ _____
4) $3\frac{2}{9} =$ _____	9) $5\frac{7}{10} =$ _____	14) $9\frac{2}{3} =$ _____
5) $9\frac{3}{8} =$ _____	10) $9\frac{1}{2} =$ _____	15) $2\frac{3}{8} =$ _____

*Directions: Simplify the following fractions.*

$\frac{4}{6} = \frac{2}{3}$	$\frac{2}{10} = \frac{1}{5}$ $\frac{21}{28} = \frac{3}{4}$	$\frac{10}{15} = \frac{2}{3}$ $\frac{6}{18} = \frac{1}{3}$
$\frac{4}{8} = \frac{1}{2}$	$\frac{16}{20} = \frac{4}{5}$ $\frac{7}{14} = \frac{1}{2}$	$\frac{6}{15} = \frac{2}{5}$ $\frac{12}{20} = \frac{3}{5}$

### Adding Fractions + Subtracting Fractions

*Directions: Solve the following problems. NO CALCULATOR! Put your answers in simplified form.*

1. $\frac{4}{7} + \frac{10}{21} =$  $\frac{12}{21} + \frac{10}{21} = \frac{22}{21} = 1\frac{1}{21}$	2. $\frac{8}{9} + \frac{1}{3} =$	3. $\frac{11}{6} + \frac{4}{9} =$
4. $\frac{6}{12} + \frac{12}{4} =$	5. $\frac{4}{5} - \frac{7}{10} =$	6. $\frac{8}{11} + \frac{12}{5} =$
7. $\frac{10}{3} - \frac{2}{12} =$	8. $\frac{11}{6} + \frac{1}{10} =$	9. $\frac{3}{5} - \frac{6}{11} =$

# Adding Fractions + Subtracting Fractions

Directions: Solve the following. NO CALCULATORS!! Show all work and simplify your answer!

$1\frac{2}{5} + 3\frac{6}{7} = 5\frac{9}{35}$ <div style="display: flex; align-items: center;"> <div style="flex: 1;"> <math display="block">1\frac{2}{5} + 3\frac{6}{7}</math> <math display="block">\frac{7}{5} \times 7 + \frac{27}{7} \times 5</math> <math display="block">\frac{49}{35} + \frac{135}{35} = \frac{184}{35} = 5\frac{9}{35}</math> </div> <div style="flex: 0.5; border: 1px solid black; padding: 2px; font-size: 0.8em;">           Rewrite as improper fractions         </div> <div style="flex: 0.5; border: 1px solid black; padding: 2px; font-size: 0.8em;">           Find least common denominator         </div> </div>	$3\frac{1}{4} + 4\frac{1}{2} = \quad 1.$
$2\frac{5}{6} + 5\frac{4}{7} = \quad 2.$	$2\frac{3}{5} + 6\frac{1}{4} = \quad 3.$
$4\frac{2}{3} + 4\frac{1}{6} = \quad 4.$	$3\frac{1}{2} + 3\frac{1}{5} = \quad 5.$
<p>6.</p> $23\frac{1}{2} - 18\frac{1}{6} =$	$19\frac{1}{2} - 4\frac{4}{5} = \quad 7.$

Directions: Solve the following. NO CALCULATORS!! Simplify your answer.

Example:  $\frac{2}{3} \times 5 = ?$

make the whole  
number a  
fraction

$$\frac{5}{1}$$

multiply the  
top numbers  
(numerators)

$$2 \times 5 = 10$$

multiply the  
bottom numbers  
(denominators)

$$3 \times 1 = 3$$

write your  
result

$$\frac{10}{3}$$

1. $3 \times \frac{2}{9} =$	$4 \times \frac{3}{15} =$ 2.	$2 \times \frac{9}{19} =$ 3.
$6 \times \frac{3}{24} =$ 4.	$2 \times \frac{2}{5} =$ 5.	$1 \times \frac{5}{5} =$ 6.
$5 \times \frac{1}{7} =$ 7.	$10 \times \frac{1}{16} =$ 8.	9. $3 \times \frac{4}{9} =$
Example: $\frac{4}{5} \times \frac{2}{8} = ?$ multiply numerators $4 \times 2 = 8$ multiply denominators $5 \times 8 = 40$ $\frac{8}{40} = \frac{1}{5}$ reduce final answer	$\frac{3}{6} \times \frac{3}{2} =$ 10.	11. $\frac{20}{40} \times \frac{2}{2} =$
$\frac{4}{7} \times \frac{5}{8} =$ 12.	$\frac{2}{6} \times \frac{6}{2} =$ 13.	$\frac{5}{10} \times \frac{2}{1} =$ 14.
$\frac{5}{25} \times \frac{4}{1} =$ 15.	$\frac{15}{17} \times \frac{6}{6} =$ 16.	$\frac{9}{9} \times \frac{1}{1} =$ 17.

## Multiplying mixed numbers

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### Grade 5 Fractions Worksheet

Find the product.

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

2.  $1\frac{1}{6} \times 2\frac{6}{12} =$  \_\_\_\_\_

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

4.  $3\frac{1}{3} \times 1\frac{4}{10} =$  \_\_\_\_\_

5.  $3\frac{3}{4} \times 3\frac{2}{9} =$  \_\_\_\_\_

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

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

8.  $1\frac{8}{12} \times 3\frac{2}{10} =$  \_\_\_\_\_

9.  $3\frac{2}{6} \times 3\frac{2}{3} =$  \_\_\_\_\_

10.  $3\frac{4}{5} \times 2\frac{3}{4} =$  \_\_\_\_\_

11.  $1\frac{3}{4} \times 1\frac{2}{4} =$  \_\_\_\_\_

12.  $2\frac{4}{5} \times 1\frac{1}{12} =$  \_\_\_\_\_

13.  $1\frac{5}{8} \times 2\frac{6}{8} =$  \_\_\_\_\_

14.  $3\frac{2}{3} \times 1\frac{1}{2} =$  \_\_\_\_\_

Directions: Solve each of the following problems. NO CALCULATORS!! SHOW ALL WORK!

<p>1. Oliver played 2 rounds of a trivia game and scored 982 points. If he gained the same number of points each round, how many points did he score per round?</p>	<p>2. Roger has 365 baseball cards in 5 binders. If each binder has the same number of cards, how many cards are in each binder?</p>
<p>3. Chloe had 472 video games. If she placed the games into 8 different stacks, how many games would be in each stack?</p>	<p>4. An ice machine had 480 ice cubes in it. If you were filling up 8 ice chests and each chest got the same number of cubes, how many ice cubes would each chest get?</p>
<p>5. Faye is making bead necklaces. She has 606 beads and is making 2 necklaces with each necklace using the same number of beads. How many beads will each necklace use?</p>	<p>6. There are 545 students in a school. If the school has 5 grades and each grade had the same number of students, how many students were in each grade?</p>

# Multiplying Decimals

Directions: Multiply the following.

$1.3 \times 100 = 130$	$6.8 \times 100 =$	$4.196 \times 100 =$
$100 \times 74.3 =$	$46.8 \times 100 =$	$4.68 \times 100 =$
$9.1 \times 100 =$	$3.28 \times 100 =$	$5.095 \times 100 =$

Directions: Multiply the following.

$1.8 \times 1,000 =$	$2.1 \times 1,000 =$	$9.097 \times 1,000 =$
$27.4 \times 1,000 =$	$1,000 \times 10.81 =$	$27.4 \times 1,000 =$

Directions: Complete.

$1.2 = 0.12 \times \underline{10}$ $= 0.012 \times \underline{100}$	$360 = 36 \times \underline{\hspace{2cm}}$ $= 3.6 \times \underline{\hspace{2cm}}$ $= 0.36 \times \underline{\hspace{2cm}}$	$438 = \underline{\hspace{2cm}} \times 10$ $= \underline{\hspace{2cm}} \times 100$ $= \underline{\hspace{2cm}} \times 1,000$
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## Powers of 10

Find the values of the following powers of 10 (eg.  $10^2 = 100$ ).

a.  $10^3 = \underline{10 \times 10 \times 10 = 1000}$       f.  $10^7 = \underline{\hspace{2cm}}$

b.  $10^5 = \underline{\hspace{2cm}}$       g.  $10^2 = \underline{\hspace{2cm}}$

c.  $10^6 = \underline{\hspace{2cm}}$       h.  $10^9 = \underline{\hspace{2cm}}$

d.  $10^4 = \underline{\hspace{2cm}}$       i.  $10^8 = \underline{\hspace{2cm}}$

e.  $10^1 = \underline{\hspace{2cm}}$       j.  $10^{10} = \underline{\hspace{2cm}}$

Write the following in exponential form (eg.  $100 = 10^2$ ).

a.  $10,000 = \underline{\hspace{2cm}}$       g.  $100 = \underline{\hspace{2cm}}$

b.  $1,000 = \underline{\hspace{2cm}}$       h.  $1 \times 10 = \underline{\hspace{2cm}}$

c.  $10 \times 10 = \underline{\hspace{2cm}}$       i.  $100,000 = \underline{\hspace{2cm}}$

d.  $100 \times 100 = \underline{\hspace{2cm}}$       j.  $100 \times 10 = \underline{\hspace{2cm}}$

e.  $1,000,000 = \underline{\hspace{2cm}}$       k.  $100,000 = \underline{\hspace{2cm}}$

f.  $1,000 \times 1,000 = \underline{\hspace{2cm}}$       l.  $10,000 \times 10 = \underline{\hspace{2cm}}$



## Convert decimals to fractions.

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### Grade 5 Decimals Worksheet

Convert to fractions.

1.  $0.83 = \frac{83}{100}$

2.  $0.4 =$  \_\_\_\_\_

3.  $0.24 =$  \_\_\_\_\_

4.  $0.96 =$  \_\_\_\_\_

5.  $0.6 =$  \_\_\_\_\_

6.  $0.2 =$  \_\_\_\_\_

7.  $0.7 =$  \_\_\_\_\_

8.  $0.19 =$  \_\_\_\_\_

9.  $0.95 =$  \_\_\_\_\_

10.  $0.1 =$  \_\_\_\_\_

11.  $0.23 =$  \_\_\_\_\_

12.  $0.68 =$  \_\_\_\_\_

13.  $0.2 =$  \_\_\_\_\_

14.  $0.97 =$  \_\_\_\_\_

15.  $0.94 =$  \_\_\_\_\_

16.  $0.5 =$  \_\_\_\_\_



## Convert fractions to decimals (denominators 10 or 100)

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### Grade 5 Decimals Worksheet

Convert to decimals.

1.  $\frac{6}{10} =$  0.6

2.  $\frac{41}{100} =$  \_\_\_\_\_

3.  $\frac{76}{100} =$  \_\_\_\_\_

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

5.  $\frac{36}{100} =$  \_\_\_\_\_

6.  $\frac{7}{10} =$  \_\_\_\_\_

7.  $\frac{25}{100} =$  \_\_\_\_\_

8.  $\frac{4}{10} =$  \_\_\_\_\_

9.  $\frac{54}{100} =$  \_\_\_\_\_

10.  $\frac{1}{10} =$  \_\_\_\_\_

11.  $\frac{37}{100} =$  \_\_\_\_\_

12.  $\frac{52}{100} =$  \_\_\_\_\_

13.  $\frac{71}{100} =$  \_\_\_\_\_

14.  $\frac{21}{100} =$  \_\_\_\_\_

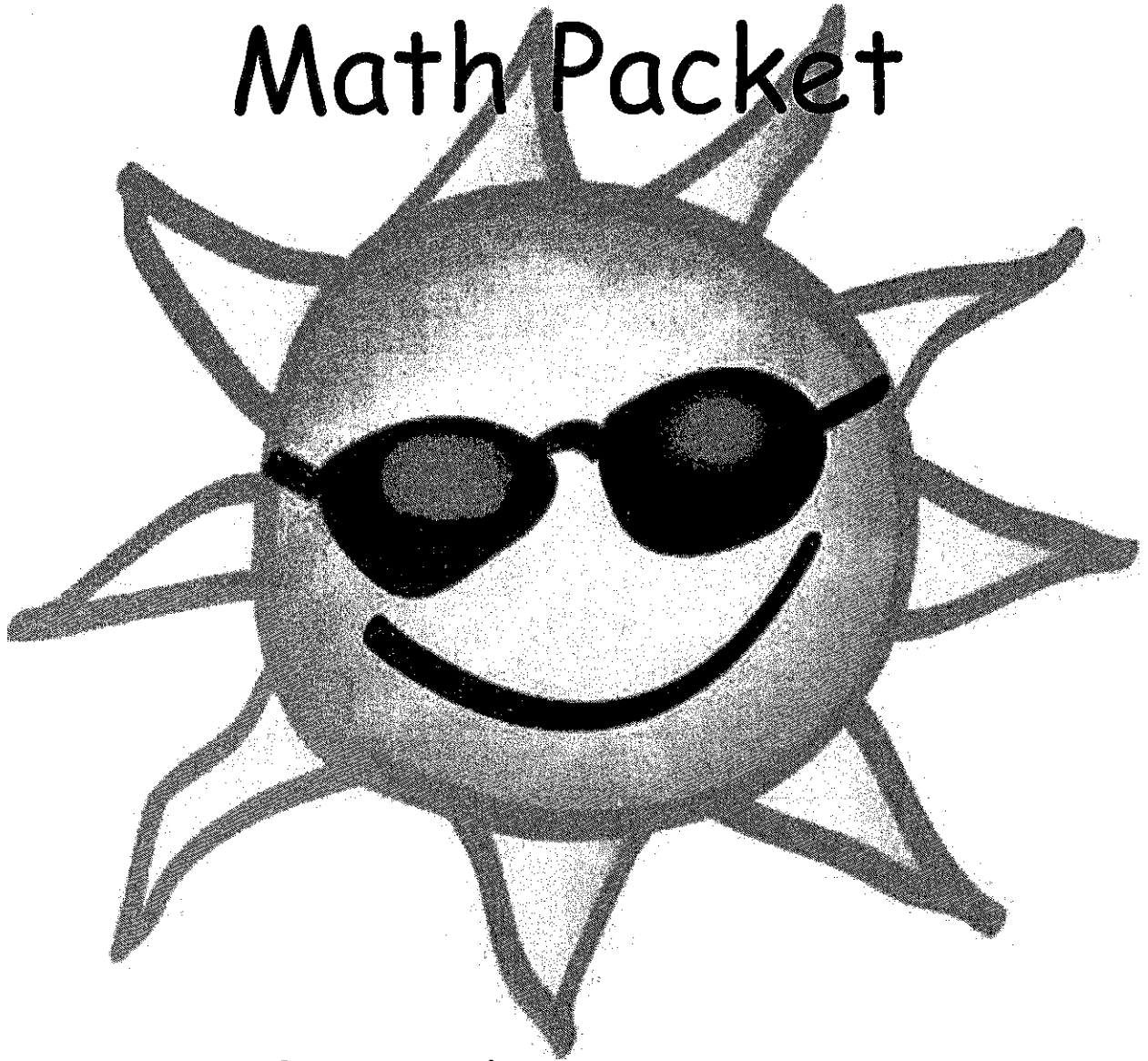
15.  $\frac{9}{10} =$  \_\_\_\_\_

16.  $\frac{79}{100} =$  \_\_\_\_\_

17.  $\frac{91}{100} =$  \_\_\_\_\_

18.  $\frac{5}{10} =$  \_\_\_\_\_

# Summer Math Packet



For students entering:

Math 6

Name: Answer Key

Concepts students should know before entering 6<sup>th</sup> Grade.

Students should be advanced at these concepts:

Directions: Complete the following problems. NO CALCULATOR!

$$\begin{array}{r} 19 \\ 4 \overline{)76} \\ \underline{-4} \phantom{0} \\ 36 \\ \underline{-36} \\ 0 \end{array}$$

$$\begin{array}{r} 21 \\ 2 \overline{)42} \\ \underline{-4} \phantom{0} \\ 02 \\ \underline{-2} \\ 0 \end{array}$$

$$\begin{array}{r} 11 \\ 10 \overline{)110} \\ \underline{-10} \phantom{0} \\ 10 \\ \underline{-10} \\ 0 \end{array}$$

$$\begin{array}{r} 11 \\ 12 \overline{)132} \\ \underline{-12} \phantom{0} \\ 12 \\ \underline{-12} \\ 0 \end{array}$$

$$\begin{array}{r} 2 \\ 8 \overline{)16} \\ \underline{-16} \\ 0 \end{array}$$

$$\begin{array}{r} 40 \\ 2 \overline{)80} \\ \underline{-8} \phantom{0} \\ 00 \\ \underline{-0} \\ 0 \end{array}$$

$$\begin{array}{r} 4 \\ 9 \overline{)36} \\ \underline{-36} \\ 0 \end{array}$$

$$\begin{array}{r} 7 \\ 6 \overline{)42} \\ \underline{-42} \\ 0 \end{array}$$

$$\begin{array}{r} 72 \\ 2 \overline{)144} \\ \underline{-14} \phantom{0} \\ 04 \\ \underline{-4} \\ 0 \end{array}$$

$$\begin{array}{r} 57 \\ 2 \overline{)114} \\ \underline{-10} \phantom{0} \\ 14 \\ \underline{-14} \\ 0 \end{array}$$

$$\begin{array}{r} 35 \\ 2 \overline{)70} \\ \underline{-6} \phantom{0} \\ 10 \\ \underline{-10} \\ 0 \end{array}$$

$$\begin{array}{r} 17 \\ 6 \overline{)102} \\ \underline{-6} \phantom{0} \\ 42 \\ \underline{-42} \\ 0 \end{array}$$

Long Division

Directions: Complete the following problems. NO CALCULATOR! SHOW ALL WORK!!

<p><b>1.</b></p> $\begin{array}{r} 619 \\ 5 \overline{) 3,095} \\ \underline{-30} \phantom{0} \\ 09 \phantom{0} \\ \underline{-5} \phantom{0} \\ 45 \phantom{0} \\ \underline{-45} \\ 0 \end{array}$	<p><b>2.</b></p> $\begin{array}{r} 0510 \\ 3 \overline{) 1,530} \\ \underline{-15} \downarrow \\ 03 \phantom{0} \\ \underline{-3} \downarrow \\ 00 \phantom{0} \\ \underline{-0} \\ 0 \end{array}$	<p><b>3.</b></p> $\begin{array}{r} 0503 \\ 12 \overline{) 6,036} \\ \underline{-60} \downarrow \\ 03 \phantom{0} \\ \underline{-0} \downarrow \\ 36 \phantom{0} \\ \underline{-36} \\ 0 \end{array}$
<p><b>4.</b></p> $\begin{array}{r} 0509 \\ 9 \overline{) 4,581} \\ \underline{-45} \downarrow \\ 08 \phantom{0} \\ \underline{-0} \downarrow \\ 81 \phantom{0} \\ \underline{-81} \\ 0 \end{array}$	<p><b>5.</b></p> $\begin{array}{r} 0775 \\ 7 \overline{) 5,425} \\ \underline{-49} \downarrow \\ 52 \phantom{0} \\ \underline{-49} \downarrow \\ 35 \phantom{0} \\ \underline{-35} \\ 0 \end{array}$	<p><b>6.</b></p> $\begin{array}{r} 0928 \\ 8 \overline{) 7,424} \\ \underline{-72} \downarrow \\ 22 \phantom{0} \\ \underline{-16} \downarrow \\ 64 \phantom{0} \\ \underline{-64} \\ 0 \end{array}$
<p><b>7.</b></p> $\begin{array}{r} 0808 \\ 3 \overline{) 2,424} \\ \underline{-24} \downarrow \\ 02 \phantom{0} \\ \underline{-0} \downarrow \\ 24 \phantom{0} \\ \underline{-24} \\ 0 \end{array}$	<p><b>8.</b></p> $\begin{array}{r} 0208 \\ 11 \overline{) 2,288} \\ \underline{-22} \downarrow \\ 08 \phantom{0} \\ \underline{-0} \downarrow \\ 88 \phantom{0} \\ \underline{-88} \\ 0 \end{array}$	<p><b>9.</b></p> $\begin{array}{r} 0907 \\ 6 \overline{) 5,442} \\ \underline{-54} \downarrow \\ 04 \phantom{0} \\ \underline{-0} \downarrow \\ 42 \phantom{0} \\ \underline{-42} \\ 0 \end{array}$
<p><b>10.</b></p> $\begin{array}{r} 0707 \\ 8 \overline{) 5,656} \\ \underline{-56} \downarrow \\ 05 \phantom{0} \\ \underline{-0} \downarrow \\ 56 \phantom{0} \\ \underline{-56} \\ 0 \end{array}$	<p><b>11.</b></p> $\begin{array}{r} 0520 \\ 3 \overline{) 1,560} \\ \underline{-15} \downarrow \\ 06 \phantom{0} \\ \underline{-6} \downarrow \\ 00 \phantom{0} \\ \underline{-00} \\ 0 \end{array}$	<p><b>12.</b></p> $\begin{array}{r} 0801 \\ 4 \overline{) 3,204} \\ \underline{-32} \downarrow \\ 00 \phantom{0} \\ \underline{-0} \downarrow \\ 04 \phantom{0} \\ \underline{-04} \\ 0 \end{array}$

# Order of Operation

Directions: Simplify the following. Remember your PEMDAS rules!

## PEMDAS Rules

Evaluate the problem in the following order:

- 1) P - Parentheses
- 2) E - Exponents ( Powers and Square Roots )
- 3) MD - Multiplication and Division ( Left to Right )
- 4) AS - Addition and Subtraction ( Left to Right )

You can remember the order by saying :

Please Excuse My Dear Aunt Sally

a x u i d u  
 r p l v d b  
 e o t l i t  
 n n i s t r  
 t e p i i a  
 h n l o o c  
 e t i n n t  
 s s c i  
 e a o  
 s t n

$13 \times 13 - 4 + 10$ $\checkmark$ $169 - 4 + 10$ $\checkmark$ $165 + 10$ $\textcircled{175}$ <hr/>	1. $18 - 11 + 19 \times 3$ $18 - 11 + 57$ $7 + 57$ $64$
2. $24 \div 8 \times 11 + 3$ $3 \times 11 + 3$ $33 + 3$ $36$	3. $2 + 11 \times 17 - 12$ $2 + 187 - 12$ $189 - 12$ $177$
4. $9 + 4 \times 12 + 15$ $9 + 48 + 15$ $57 + 15$ $72$	5. $16 \times 3 - 2 + 3$ $48 - 2 + 3$ $46 + 3$ $49$
6. $16 + 9 - 10 \div 5$ $16 + 9 - 2$ $25 - 2$ $23$	7. $16 \div 2 + 19 - 16$ $8 + 19 - 16$ $27 - 16$ $11$

Directions: Simplify the following. Remember your PEMDAS rules!

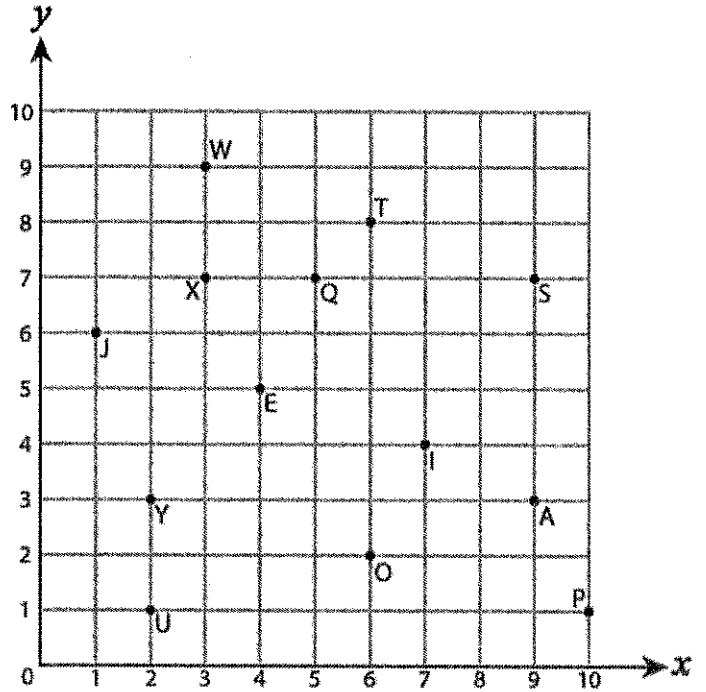
$7 \times (5 \times 10 + 4) - 7$ $7 \times (50 + 4) - 7$ $7 \times 54 - 7$ $378 - 7$ $\boxed{371}$	1. $(8 + 23 - 3) \div (13 - 6)$ $(31 - 3) \div 7$ $28 \div 7$ $4$
2. $(15 - 3) \times (10 + 3) - 4$ $12 \times 13 - 4$ $156 - 4$ $152$	3. $(16 + 4) + (11 + 15 \div 5)$ $20 + (11 + 3)$ $20 + 14$ $34$
4. $(14 + 29 - 3) \div 20 - 2$ $(43 - 3) \div 20 - 2$ $40 \div 20 - 2$ $2 - 2$ $0$	5. $(15 + 18 - 3) \div (15 \times 2)$ $(33 - 3) \div 30$ $30 \div 30$ $1$
6. $(8 + 4) + (10 + 14 \div 7)$ $12 + (10 + 2)$ $12 + 12$ $24$	7. $(12 + 22 - 2) + 16 - 2$ $(34 - 4) + 16 - 2$ $30 + 16 - 2$ $46 - 2$ $44$



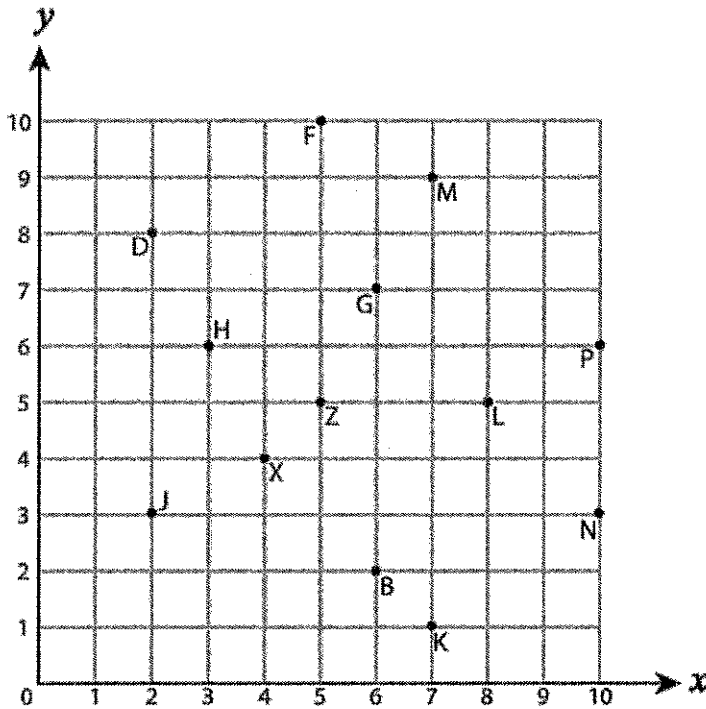
Coordinate System

Directions: Write the point that is located at each ordered pair.

- |              |                  |              |                  |
|--------------|------------------|--------------|------------------|
| 1) $(6, 2)$  | <u>    O    </u> | 2) $(6, 8)$  | <u>    T    </u> |
| 3) $(10, 1)$ | <u>    P    </u> | 4) $(4, 5)$  | <u>    E    </u> |
| 5) $(9, 7)$  | <u>    S    </u> | 6) $(2, 3)$  | <u>    Y    </u> |
| 7) $(1, 6)$  | <u>    J    </u> | 8) $(5, 7)$  | <u>    Q    </u> |
| 9) $(2, 1)$  | <u>    U    </u> | 10) $(7, 4)$ | <u>    I    </u> |



Directions: Write the ordered pair for each point.



- |                |                |
|----------------|----------------|
| 11) $N(10, 3)$ | 12) $X(4, 4)$  |
| 13) $B(6, 2)$  | 14) $L(8, 5)$  |
| 15) $Z(5, 5)$  | 16) $P(10, 6)$ |
| 17) $D(2, 8)$  | 18) $M(7, 9)$  |
| 19) $J(2, 3)$  | 20) $H(3, 6)$  |

# Adding & Subtracting Decimals

**Directions:** Solve the following. **DO NOT USE A CALCULATOR!!**

## Example 1 Add Decimals

Find the value of  $3.9 + 2.45$ .

**STEP 1** Rewrite the problem vertically in order to align the decimal points in each number. Add a zero to 3.9 as a placeholder.

$$\begin{array}{r} 3.90 \\ + 2.45 \\ \hline \end{array}$$

**STEP 2** Begin by adding the digits in the hundredths place.

$$\begin{array}{r} 3.90 \\ + 2.45 \\ \hline 5 \end{array}$$

**STEP 3** Add the digits in the tenths place. Since  $9 + 4 = 13$ , regroup 10 tenths as 1 one.

$$\begin{array}{r} 3.90 \\ + 2.45 \\ \hline 35 \end{array}$$

**STEP 4** Place the decimal point in the answer. Add the digits in the ones place.

$$\begin{array}{r} 3.90 \\ + 2.45 \\ \hline 6.35 \end{array}$$

$3.9 + 2.45 = 6.35$

## Example 2 Subtract Decimals

Find the value of  $8.6 - 4.55$ .

**STEP 1** Rewrite the problem vertically in order to align the decimal points in each number. Add a zero to 8.6 as a placeholder.

$$\begin{array}{r} 8.60 \\ - 4.55 \\ \hline \end{array}$$

**STEP 2** Begin by subtracting the digits in the hundredths place. Regroup 1 tenth as 10 hundredths so that you can subtract.

$$\begin{array}{r} 8.60 \\ - 4.55 \\ \hline 5 \end{array}$$

**STEP 3** Subtract the digits in the tenths place.

$$\begin{array}{r} 8.60 \\ - 4.55 \\ \hline 05 \end{array}$$

**STEP 4** Place the decimal point in the answer. Subtract the digits in the ones place.

$$\begin{array}{r} 8.60 \\ - 4.55 \\ \hline 4.05 \end{array}$$

$8.6 - 4.55 = 4.05$

<p>1. <math>4.59 + 1.02</math></p> $\begin{array}{r} 4.59 \\ + 1.02 \\ \hline 5.61 \end{array}$	<p>2. <math>9.04 - 6.32</math></p> $\begin{array}{r} 9.04 \\ - 6.32 \\ \hline 2.72 \end{array}$	<p>3. <math>5.8 + 0.26</math></p> $\begin{array}{r} 5.80 \\ + 0.26 \\ \hline 6.06 \end{array}$
<p>4. <math>6.5 - 3.7</math></p> $\begin{array}{r} 6.5 \\ - 3.7 \\ \hline 2.8 \end{array}$	<p>5. <math>0.4 + 8.61</math></p> $\begin{array}{r} 0.40 \\ + 8.61 \\ \hline 9.01 \end{array}$	<p>6. <math>3.28 - 1.09</math></p> $\begin{array}{r} 3.28 \\ - 1.09 \\ \hline 2.19 \end{array}$
<p>7. <math>5.7 + 4.63</math></p> $\begin{array}{r} 5.70 \\ + 4.63 \\ \hline 10.33 \end{array}$	<p>8. <math>6.3 - 2.99</math></p> $\begin{array}{r} 6.30 \\ - 2.99 \\ \hline 3.31 \end{array}$	<p>9. <math>8.07 + 0.86</math></p> $\begin{array}{r} 8.07 \\ + 0.86 \\ \hline 8.93 \end{array}$
<p>10. <math>7.2 - 5.98</math></p> $\begin{array}{r} 7.20 \\ - 5.98 \\ \hline 1.22 \end{array}$	<p>11. <math>7.02 + 7.3</math></p> $\begin{array}{r} 7.02 \\ + 7.30 \\ \hline 14.32 \end{array}$	<p>12. <math>5.33 - 2.68</math></p> $\begin{array}{r} 5.33 \\ - 2.68 \\ \hline 2.65 \end{array}$

Name Answers

Date \_\_\_\_\_

**Multiplying and Dividing Decimals**

Find the product or quotient. Show ALL work in the space provided or on a separate piece of paper.

1)  $3.94 \cdot 0.4$

$$\begin{array}{r} 3.94 \\ \times 0.4 \\ \hline 1576 \end{array}$$

$$\underline{1576}$$

$$\boxed{1.576}$$

2)  $0.144 \div 12$

$$\begin{array}{r} 0.012 \\ 12 \overline{) 0.144} \\ \underline{12} \phantom{0} \\ 24 \\ \underline{-24} \\ 0 \end{array}$$

$$\boxed{0.012}$$

3)  $0.587 \cdot 8$

$$\begin{array}{r} 0.587 \\ \times 8 \\ \hline 4696 \end{array}$$

$$\underline{4696}$$

$$\boxed{4.696}$$

4)  $40.8 \div 2$

$$\begin{array}{r} 20.4 \\ 2 \overline{) 40.8} \\ \underline{40} \phantom{0} \\ 08 \\ \underline{-08} \\ 0 \end{array}$$

$$\boxed{20.4}$$

Read each problem carefully. Show ALL work in the space provided or on a separate piece of paper.

5) A deli charges \$3.45 for a pound of turkey. If Tim wants to purchase 2.4 pounds, how much will it cost?

$$\begin{array}{r} 3.45 \\ \times 2.4 \\ \hline 1380 \\ + 6900 \\ \hline 8.280 \end{array}$$

It will cost Tim \$8.28 for 2.4 pounds of turkey.

6) The average mail carrier walks 4.8 kilometers in a workday. How far do most mail carriers walk in a 6-day week? There are 27 working days in July, so how far will a mail carrier walk in July?

$$\begin{array}{r} 448 \\ \times 6 \\ \hline 288 \end{array}$$

$$\begin{array}{r} 548 \\ \times 27 \\ \hline 336 \\ 960 \\ \hline 129.6 \end{array}$$

Most mail carriers walk 28.8 Kms in 6 days and 129.6 kms in July.

7) Anna is saving \$6 a week to buy a computer game that costs \$57.12. How many weeks will she have to save to buy the game?

$$\begin{array}{r} 9.52 \\ 6 \overline{) 57.12} \\ \underline{-54} \phantom{0} \\ 31 \phantom{0} \\ \underline{-30} \phantom{0} \\ 12 \phantom{0} \end{array}$$

Anna will have to save for 10 weeks before she has enough for the game.

8) Ben ran a 19.6-mile race last Saturday. His average speed during the race was 7 miles per hour. How long did it take Ben to finish the race?

$$\begin{array}{r} 2.8 \\ 7 \overline{) 19.6} \\ \underline{-14} \phantom{0} \\ 56 \\ \underline{-56} \\ 0 \end{array}$$

It took Ben 2.8 hrs to run the race.  
(or 2 hrs and 48 min)

9) Antonio bought 4.5 pounds of cashews. They cost \$1.40 per pound. How much did Antonio pay in total for the cashews?

$$\begin{array}{r} 24.5 \\ \times 1.4 \\ \hline 180 \\ 450 \\ \hline 63.0 \end{array}$$

Antonio paid \$6.30 for the cashews.

## Mixed Numbers & Improper Fractions

Directions: Convert the following improper fractions to mixed numbers. Write your answer on the line next to each problem.

1) $\frac{9}{4} = \underline{\quad 2\frac{1}{4} \quad}$	6) $\frac{11}{5} = \underline{\quad 2\frac{1}{5} \quad}$	11) $\frac{71}{10} = \underline{\quad 7\frac{1}{10} \quad}$
2) $\frac{82}{9} = \underline{\quad 9\frac{1}{9} \quad}$	7) $\frac{61}{6} = \underline{\quad 10\frac{1}{6} \quad}$	12) $\frac{29}{7} = \underline{\quad 4\frac{1}{7} \quad}$
3) $\frac{31}{5} = \underline{\quad 6\frac{1}{5} \quad}$	8) $\frac{7}{3} = \underline{\quad 2\frac{1}{3} \quad}$	13) $\frac{55}{6} = \underline{\quad 9\frac{1}{6} \quad}$
4) $\frac{13}{3} = \underline{\quad 4\frac{1}{3} \quad}$	9) $\frac{50}{7} = \underline{\quad 7\frac{1}{7} \quad}$	14) $\frac{21}{10} = \underline{\quad 2\frac{1}{10} \quad}$
5) $\frac{29}{7} = \underline{\quad 4\frac{1}{7} \quad}$	10) $\frac{17}{4} = \underline{\quad 4\frac{1}{4} \quad}$	15) $\frac{25}{4} = \underline{\quad 6\frac{1}{4} \quad}$

Directions: Convert the following improper fractions to mixed numbers. Write your answer on the line next to each problem.

1) $5\frac{1}{3} = \underline{\frac{16}{3}} \underline{\quad}$	6) $2\frac{1}{2} = \underline{\frac{5}{2}} \underline{\quad}$	11) $9\frac{1}{5} = \underline{\frac{46}{5}} \underline{\quad}$
2) $2\frac{1}{8} = \underline{\frac{17}{8}} \underline{\quad}$	7) $3\frac{1}{4} = \underline{\frac{13}{4}} \underline{\quad}$	12) $6\frac{1}{2} = \underline{\frac{13}{2}} \underline{\quad}$
3) $3\frac{1}{4} = \underline{\frac{13}{4}} \underline{\quad}$	8) $6\frac{1}{10} = \underline{\frac{61}{10}} \underline{\quad}$	13) $5\frac{4}{9} = \underline{\frac{49}{9}} \underline{\quad}$
4) $3\frac{2}{9} = \underline{\frac{29}{9}} \underline{\quad}$	9) $5\frac{7}{10} = \underline{\frac{57}{10}} \underline{\quad}$	14) $9\frac{2}{3} = \underline{\frac{29}{3}} \underline{\quad}$
5) $9\frac{3}{8} = \underline{\frac{75}{8}} \underline{\quad}$	10) $9\frac{1}{2} = \underline{\frac{19}{2}} \underline{\quad}$	15) $2\frac{3}{8} = \underline{\frac{19}{8}} \underline{\quad}$

Directions: Simplify the following fractions.

$\frac{4}{6} = \frac{2}{3}$	$\frac{2}{10} = \frac{1}{5}$	$\frac{21}{28} = \frac{3}{4}$	$\frac{10}{15} = \frac{2}{3}$	$\frac{6}{18} = \frac{1}{3}$
$\frac{4}{8} = \frac{1}{2}$	$\frac{16}{20} = \frac{4}{5}$	$\frac{7}{14} = \frac{1}{2}$	$\frac{6}{15} = \frac{2}{5}$	$\frac{12}{20} = \frac{3}{5}$

### Adding Fractions + Subtracting Fractions

Directions: Solve the following problems. NO CALCULATOR! Put your answers in simplified form.

<p>1. <math>\frac{4}{7} + \frac{10}{21} =</math></p> $\frac{12}{21} + \frac{10}{21} = \frac{22}{21} = 1\frac{1}{21}$	<p>2. <math>\frac{8}{9} + \frac{1}{3} =</math></p> $\frac{24}{27} + \frac{9}{27} = \frac{33}{27} = 1\frac{6}{27}$ $= 1\frac{2}{9}$	<p>3. <math>\frac{11}{6} + \frac{4}{9} =</math></p> $\frac{33}{18} + \frac{8}{18} = \frac{41}{18} = 2\frac{5}{18}$
<p>4. <math>\frac{6}{12} + \frac{12}{4} =</math></p> $\frac{6}{12} + 3 = 3\frac{6}{12} = 3\frac{1}{2}$	<p>5. <math>\frac{4}{5} - \frac{7}{10} =</math></p> $\frac{8}{10} - \frac{7}{10} = \frac{1}{10}$	<p>6. <math>\frac{8}{11} + \frac{12}{5} =</math></p> $\frac{40}{55} + \frac{132}{55} = \frac{172}{55} = 3\frac{7}{55}$
<p>7. <math>\frac{10}{3} - \frac{2}{12} =</math></p> $\frac{20}{6} - \frac{1}{6} = \frac{19}{6} = 3\frac{1}{6}$	<p>8. <math>\frac{11}{6} + \frac{1}{10} =</math></p> $\frac{55}{30} + \frac{3}{30} = \frac{58}{30} = 1\frac{28}{30}$ $= 1\frac{14}{15}$	<p>9. <math>\frac{3}{5} - \frac{6}{11} =</math></p> $\frac{33}{55} - \frac{30}{55} = \frac{3}{55}$

# Adding Fractions + Subtracting Fractions

Directions: Solve the following. NO CALCULATORS!! Show all work and simplify your answer!

$$1\frac{2}{5} + 3\frac{6}{7} = 5\frac{9}{35}$$

$1\frac{2}{5} + 3\frac{6}{7}$	Rewrite as improper fractions
$\frac{7}{5} \times 7 + \frac{27}{7} \times 5$	Find least common denominator
$\frac{49}{35} + \frac{135}{35} = \frac{184}{35} = 5\frac{9}{35}$	

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

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

$$2\frac{5}{6} + 5\frac{4}{7} = 2.$$

$$2\frac{35}{42} + 5\frac{24}{42} = 7\frac{59}{42} = 8\frac{17}{42}$$

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

$$2\frac{12}{20} + 6\frac{5}{20} = 8\frac{17}{20}$$

$$4\frac{2}{3} + 4\frac{1}{6} = 4.$$

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

$$3\frac{1}{2} + 3\frac{1}{5} = 5.$$

$$3\frac{5}{10} + 3\frac{2}{10} = 6\frac{7}{10}$$

6.

$$23\frac{1}{2} - 18\frac{1}{6} =$$

$$23\frac{3}{6} - 18\frac{1}{6} = 5\frac{2}{6} = 5\frac{1}{3}$$

$$19\frac{1}{2} - 4\frac{4}{5} = 7.$$

$$19\frac{5}{10} - 4\frac{8}{10} = 18\frac{15}{10} - 4\frac{8}{10} = 14\frac{7}{10}$$

Directions: Solve the following. NO CALCULATORS!! Simplify your answer.

Example:  $\frac{2}{3} \times 5 = ?$

make the whole number a fraction

$$\frac{5}{1}$$

multiply the top numbers (numerators)

$$2 \times 5 = 10$$

multiply the bottom numbers (denominators)

$$3 \times 1 = 3$$

write your result

$$\frac{10}{3}$$

<p>1. <math>3 \times \frac{2}{9} =</math></p> $\frac{13}{1} \times \frac{2}{93} = \frac{2}{3}$	<p><math>4 \times \frac{3}{15} =</math> 2.</p> $\frac{4}{1} \times \frac{31}{155} = \frac{4}{5}$	<p><math>2 \times \frac{9}{19} =</math> 3.</p> $\frac{2}{1} \times \frac{9}{19} = \frac{18}{19}$
<p><math>6 \times \frac{3}{24} =</math> 4.</p> $\frac{16}{1} \times \frac{3}{244} = \frac{3}{4}$	<p><math>2 \times \frac{2}{5} =</math> 5.</p> $\frac{2}{1} \times \frac{2}{5} = \frac{4}{5}$	<p><math>1 \times \frac{5}{5} =</math> 6.</p> $\frac{1}{1} \times \frac{51}{51} = \frac{1}{1} = 1$
<p><math>5 \times \frac{1}{7} =</math> 7.</p> $\frac{5}{1} \times \frac{1}{7} = \frac{5}{7}$	<p><math>10 \times \frac{1}{16} =</math> 8.</p> $\frac{510}{1} \times \frac{1}{168} = \frac{5}{8}$	<p>9. <math>3 \times \frac{4}{9} =</math></p> $\frac{13}{1} \times \frac{4}{93} = \frac{4}{3} = 1 \frac{1}{3}$
<p>Example: <math>\frac{4}{5} \times \frac{2}{8} = ?</math></p> <p>multiply numerators <math>\frac{4 \times 2}{5 \times 8} = \frac{8}{40}</math> reduce final answer <math>\frac{1}{5}</math>          multiply denominators</p>	<p><math>\frac{3}{6} \times \frac{3}{2} =</math> 10.</p> $\frac{13}{26} \times \frac{3}{2} = \frac{3}{4}$	<p>11. <math>\frac{20}{40} \times \frac{2}{2} =</math></p> $\frac{120}{240} \times \frac{21}{21} = \frac{1}{2}$
<p><math>\frac{4}{7} \times \frac{5}{8} =</math> 12.</p> $\frac{14}{7} \times \frac{5}{82} = \frac{5}{14}$	<p><math>\frac{2}{6} \times \frac{6}{2} =</math> 13.</p> $\frac{12}{16} \times \frac{61}{21} = \frac{1}{1} = 1$	<p><math>\frac{5}{10} \times \frac{2}{1} =</math> 14.</p> $\frac{15}{1210} \times \frac{21}{1} = \frac{1}{1} = 1$
<p><math>\frac{5}{25} \times \frac{4}{1} =</math> 15.</p> $\frac{15}{525} \times \frac{4}{1} = \frac{4}{5}$	<p><math>\frac{15}{17} \times \frac{6}{6} =</math> 16.</p> $\frac{15}{17} \times \frac{61}{61} = \frac{15}{17}$	<p><math>\frac{9}{9} \times \frac{1}{1} =</math> 17.</p> $\frac{19}{19} \times \frac{1}{1} = \frac{1}{1} = 1$



## Multiplying mixed numbers

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### Grade 5 Fractions Worksheet

Find the product.

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

2.  $1\frac{1}{6} \times 2\frac{6}{12} = 2\frac{11}{12}$

3.  $2\frac{1}{2} \times 3\frac{4}{5} = 9\frac{1}{2}$

4.  $3\frac{1}{3} \times 1\frac{4}{10} = 4\frac{2}{3}$

5.  $3\frac{3}{4} \times 3\frac{2}{9} = 12\frac{1}{12}$

6.  $3\frac{5}{6} \times 2\frac{1}{2} = 9\frac{7}{12}$

7.  $1\frac{1}{2} \times 3\frac{1}{2} = 5\frac{1}{4}$

8.  $1\frac{8}{12} \times 3\frac{2}{10} = 5\frac{1}{3}$

9.  $3\frac{2}{6} \times 3\frac{2}{3} = 12\frac{2}{9}$

10.  $3\frac{4}{5} \times 2\frac{3}{4} = 10\frac{9}{20}$

11.  $1\frac{3}{4} \times 1\frac{2}{4} = 2\frac{5}{8}$

12.  $2\frac{4}{5} \times 1\frac{1}{12} = 3\frac{1}{30}$

13.  $1\frac{5}{8} \times 2\frac{6}{8} = 4\frac{15}{32}$

14.  $3\frac{2}{3} \times 1\frac{1}{2} = 5\frac{1}{2}$

Directions: Solve each of the following problems. **NO CALCULATORS!! SHOW ALL WORK!**

<p>1. Oliver played 2 rounds of a trivia game and scored 982 points. If he gained the same number of points each round, how many points did he score per round?</p> <p>2 rounds <math>\rightarrow</math> 982 points 1 round <math>\rightarrow 982 \div 2 = 491</math></p> <p><b>491 points per round</b></p>	<p>2. Roger has 365 baseball cards in 5 binders. If each binder has the same number of cards, how many cards are in each binder?</p> <p>5 binders <math>\rightarrow</math> 365 cards 1 binder <math>\rightarrow 365 \div 5 = 73</math></p> <p><b>73 cards per binder</b></p>
<p>3. Chloe had 472 video games. If she placed the games into 8 different stacks, how many games would be in each stack?</p> <p>8 stacks <math>\rightarrow</math> 472 games 1 stacks <math>\rightarrow 472 \div 8 = 59</math></p> <p><b>59 games per stack</b></p>	<p>4. An ice machine had 480 ice cubes in it. If you were filling up 8 ice chests and each chest got the same number of cubes, how many ice cubes would each chest get?</p> <p><math>480 \div 8 = 60</math></p> <p><b>60 ice cubes per ice chest</b></p>
<p>5. Faye is making bead necklaces. She has 606 beads and is making 2 necklaces with each necklace using the same number of beads. How many beads will each necklace use?</p> <p><math>606 \div 2 = 303</math></p> <p><b>303 beads per necklace</b></p>	<p>6. There are 545 students in a school. If the school has 5 grades and each grade had the same number of students, how many students were in each grade?</p> <p>5 grades <math>\rightarrow</math> 545 students 1 grade <math>\rightarrow 545 \div 5 = 109</math></p> <p><b>109 students per grades</b></p>

# Multiplying Decimals

Directions: Multiply the following.

$1.3 \times 100 = 130$	$6.8 \times 100 = 680$	$4.196 \times 100 = 419.6$
$100 \times 74.3 = 7,430$	$46.8 \times 100 = 4,680$	$4.68 \times 100 = 468$
$9.1 \times 100 = 910$	$3.28 \times 100 = 328$	$5.095 \times 100 = 509.5$

Directions: Multiply the following.

$1.8 \times 1,000 = 1,800$	$2.1 \times 1,000 = 2,100$	$9.097 \times 1,000 = 9,097$
$27.4 \times 1,000 = 27,400$	$1,000 \times 10.81 = 10,810$	$27.4 \times 1,000 = 27,400$

Directions: Complete.

$1.2 = 0.12 \times \frac{10}{10}$ $= 0.012 \times \frac{100}{100}$	$360 = 36 \times \frac{10}{10}$ $= 3.6 \times \frac{100}{100}$ $= 0.36 \times \frac{1,000}{1,000}$	$438 = \frac{43.8}{10} \times 10$ $= \frac{4.38}{100} \times 100$ $= \frac{0.438}{1,000} \times 1,000$
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## Powers of 10

Find the values of the following powers of 10 (eg.  $10^2 = 100$ ).

a.  $10^3 = 1,000$

f.  $10^7 = 10,000,000$

b.  $10^5 = 100,000$

g.  $10^2 = 100$

c.  $10^6 = 1,000,000$

h.  $10^9 = 1,000,000,000$

d.  $10^4 = 10,000$

i.  $10^8 = 100,000,000$

e.  $10^1 = 10$

j.  $10^{10} = 10,000,000,000$

Write the following in exponential form (eg.  $100 = 10^2$ ).

a.  $10,000 = 10^4$

g.  $100 = 10^2$

b.  $1,000 = 10^3$

h.  $1 \times 10 = 10^1 = 10$

c.  $10 \times 10 = 10^2$

i.  $100,000 = 10^5$

d.  $100 \times 100 = 10^4$

j.  $100 \times 10 = 10^3$

e.  $1,000,000 = 10^6$

k.  $100,000 = 10^5$

f.  $1,000 \times 1,000 = 10^6$

l.  $10,000 \times 10 = 10^5$

## Convert decimals to fractions.

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### Grade 5 Decimals Worksheet

Convert to fractions.

1.  $0.83 = \frac{83}{100}$  \_\_\_\_\_

2.  $0.4 = \frac{4}{10}$  \_\_\_\_\_

3.  $0.24 = \frac{24}{100}$  \_\_\_\_\_

4.  $0.96 = \frac{96}{100}$  \_\_\_\_\_

5.  $0.6 = \frac{6}{10}$  \_\_\_\_\_

6.  $0.2 = \frac{2}{10}$  \_\_\_\_\_

7.  $0.7 = \frac{7}{10}$  \_\_\_\_\_

8.  $0.19 = \frac{19}{100}$  \_\_\_\_\_

9.  $0.95 = \frac{95}{100}$  \_\_\_\_\_

10.  $0.1 = \frac{1}{10}$  \_\_\_\_\_

11.  $0.23 = \frac{23}{100}$  \_\_\_\_\_

12.  $0.68 = \frac{68}{100}$  \_\_\_\_\_

13.  $0.2 = \frac{2}{10}$  \_\_\_\_\_

14.  $0.97 = \frac{97}{100}$  \_\_\_\_\_

15.  $0.94 = \frac{94}{100}$  \_\_\_\_\_

16.  $0.5 = \frac{5}{10}$  \_\_\_\_\_

## Convert fractions to decimals (denominators 10 or 100)

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### Grade 5 Decimals Worksheet

Convert to decimals.

1.  $\frac{6}{10} = \underline{0.6}$

2.  $\frac{41}{100} = \underline{0.41}$

3.  $\frac{76}{100} = \underline{0.76}$

4.  $\frac{3}{10} = \underline{0.3}$

5.  $\frac{36}{100} = \underline{0.36}$

6.  $\frac{7}{10} = \underline{0.7}$

7.  $\frac{25}{100} = \underline{0.25}$

8.  $\frac{4}{10} = \underline{0.4}$

9.  $\frac{54}{100} = \underline{0.54}$

10.  $\frac{1}{10} = \underline{0.1}$

11.  $\frac{37}{100} = \underline{0.37}$

12.  $\frac{52}{100} = \underline{0.52}$

13.  $\frac{71}{100} = \underline{0.71}$

14.  $\frac{21}{100} = \underline{0.21}$

15.  $\frac{9}{10} = \underline{0.9}$

16.  $\frac{79}{100} = \underline{0.79}$

17.  $\frac{91}{100} = \underline{0.91}$

18.  $\frac{5}{10} = \underline{0.5}$