

# Chapter 1 – Whole Numbers

## Contents

Chapter 1 – Whole Numbers.....	1
Arithmetic Practice with Units .....	2
Multiplication Facts Practice with Cards.....	5
Multiplication Table – Blank.....	6
Multiplication Table – Filled In.....	7
Multiplication Facts Practice Game .....	8
Problem Solving with Whole Numbers.....	10
Order of Operations with Whole Numbers.....	13

## Arithmetic Practice with Units

Name \_\_\_\_\_

Perform the indicated operation and write your answer with the proper units.

1.  $\$301 + \$452$

2.  $835 \text{ miles} + 406 \text{ miles}$

3.  $16075 \text{ yen} + 5986 \text{ yen}$

4.  $768 \text{ cases} - 513 \text{ cases}$

5.  $5280 \text{ feet} - 355 \text{ feet}$

6.  $\$10,001 - \$979$

7.  $8000 \text{ Chilean pesos} \times 10$

8.  $862 \text{ euros} \cdot 15$

9.  $(7,456 \text{ km})(52)$

10.  $1500 \text{ inches} \div 3$

11.  $4 \overline{)496} \text{ ounces}$

12.  $6 \overline{)1914} \text{ yuan}$

13.  $\$152 + \$399 + \$1,032$

14.  $862 \text{ meters} \cdot 36 \cdot 2$

15.  $2935 \text{ mm} \div 5$

16.  $1,000 \text{ liters} - 628 \text{ liters}$

17.  $(4,362)(30 \text{ days})$

18.  $156,983 \text{ rupees} - 93,299 \text{ rupees}$

19.  $16,450 \text{ Nigerian naira} \times 18$

20.  $8320 \text{ pounds} \div 16$

21.  $18 \text{ mg} + 132 \text{ mg} + 1549 \text{ mg}$

### Exponents

We use exponents to indicate repeated multiplication. The **base** is the number that is multiplied and the **exponent** is the number of times it is multiplied.

Identify the base and exponent and write in expanded form. The first one is shown for you.

22.  $4^3$   
The base is 4  
The exponent is 3  
Expanded form:  $4^3 = 4 \cdot 4 \cdot 4 = 64$

23.  $3^5$   
The base is  
The exponent is  
Expanded form:

Expand and write the answer.

24.  $3^2$

25.  $4^2$

26.  $5^2$

27.  $1^2$

28.  $2^3$

29.  $2^4$

30.  $1^5$

31.  $0^2$

32.  $0^{236}$

Each group needs one standard deck of playing cards.



### Product Compare

- Shuffle the cards and deal the whole deck among the players
- Keep your cards face down in a stack in front of you
- Let all face cards have a value of 10 and Jokers have a value of zero. Aces have a value of 1.
- At the same time, each player turns over 2 cards and multiplies them together. Say your products out loud
- The person with the highest product takes all the cards and sets them aside.
- If you run out of cards, shuffle your won cards and continue playing
- The winner is the person who gets the whole deck or has the most cards when time runs out

**If you have time you can make up your own variation!**

**A deck of cards is great to use for multiplication flashcards. You can practice up to 12x12 using jacks for 11 and queens for 12.**

**Multiplication Table – Blank**

Name \_\_\_\_\_

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>1</b>												
<b>2</b>												
<b>3</b>												
<b>4</b>												
<b>5</b>												
<b>6</b>												
<b>7</b>												
<b>8</b>												
<b>9</b>												
<b>10</b>												
<b>11</b>												
<b>12</b>												

**Multiplication Table – Filled In**

Name \_\_\_\_\_

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>1</b>	1	2	3	4	5	6	7	8	9	10	11	12
<b>2</b>	2	4	6	8	10	12	14	16	18	20	22	24
<b>3</b>	3	6	9	12	15	18	21	24	27	30	33	36
<b>4</b>	4	8	12	16	20	24	28	32	36	40	44	48
<b>5</b>	5	10	15	20	25	30	35	40	45	50	55	60
<b>6</b>	6	12	18	24	30	36	42	48	54	60	66	72
<b>7</b>	7	14	21	28	35	42	49	56	63	70	77	84
<b>8</b>	8	16	24	32	40	48	56	64	72	80	88	96
<b>9</b>	9	18	27	36	45	54	63	72	81	90	99	108
<b>10</b>	10	20	30	40	50	60	70	80	90	100	110	120
<b>11</b>	11	22	33	44	55	66	77	88	99	110	121	132
<b>12</b>	12	24	36	48	60	72	84	96	108	120	132	144

# Race to 1000

**Materials:** Instructions, a game board and two paper clips per group

**Groups:** Form groups of 1 – 4 players

## How to Play:

- Each player writes their name at the bottom of a column in the start space. Decide who will go first and the order of play.
- On your turn, spin a paper clip on each spinner by putting your pen or pencil inside the paper clip on the center of the spinner as shown below. Multiply the two numbers and say the product out loud. The other players can check you. Add the product to your running total on a piece of paper (see the example below).
- Give each person time to find their own product. Use pencil and paper and counting strategies. Be supportive of your teammates. Each person keeps track of their own total.
- When your total goes over the next hundred, color in that space on the chart with a pencil, pen or highlighter. The first person to reach 1000 wins. If you have time, keep playing for second and third place.



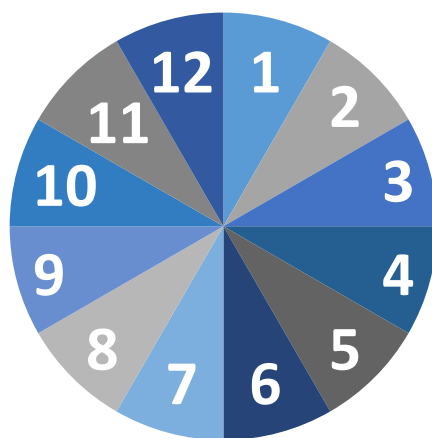
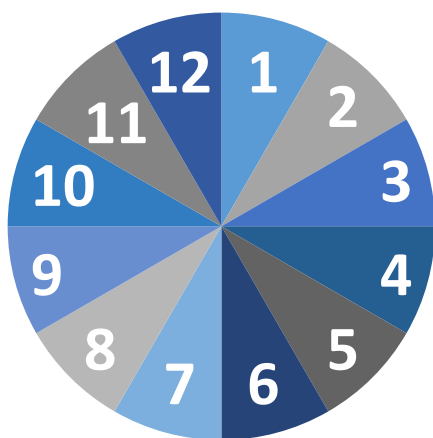
### Running Total Example

$$\begin{array}{r}
 1^{\text{st}} \text{ turn} \quad 16 \\
 2^{\text{nd}} \text{ turn} \quad + 49 \\
 \hline
 65 \text{ (total)} \\
 3^{\text{rd}} \text{ turn} \quad + 100 \\
 \hline
 165 \text{ (total)}
 \end{array}$$



# Race to 1000

1000				
900				
800				
700				
600				
500				
400				
300				
200				
100				
<b>Start/Names</b>				



## Problem Solving with Whole Numbers

Name \_\_\_\_\_

1. What operation is associated with each of the following words?

total

double

goes into

reduced by

shared equally

loss

triple

altogether

For each problem, decide which mathematical operation(s) is appropriate to use and then find the answer. Show your thinking with words, symbols and/or pictures. Write your answer in a complete sentence.

2. Find the total number of calories in the following lunch from McDonald's: Big Mac (540 calories), small French fries (230 calories), Fruit 'n Yogurt Parfait (160 calories), medium Coca-Cola Classic (210 calories).

Mathematical Operation(s):

Solution:

Complete sentence:

3. A movie theater makes a \$4 profit on each ticket sold. How many tickets must be sold to make a profit of \$2,500?

Mathematical Operation(s):

Solution:

Complete sentence:

4. A savings account contained \$1,370. After a withdrawal of \$197 and a deposit of \$340, how much is now in the account.

Mathematical Operation(s):

Solution:

Complete sentence:

5. How many tablets should a pharmacist give a person who needs to take 2 tablets 3 times a day for 14 days?

Mathematical Operation(s):

Solution:

Complete sentence:

6. The cost of a student parking pass at PCC is \$45 per term if you buy it online. If a daily pass is \$5, after how many days does a term pass pay off?

Mathematical Operation(s):

Solution:

Complete sentence:

7. A student athlete practices soccer for 60 minutes every week, basketball for 90 minutes and volleyball for 45 minutes. How many minutes will they practice altogether in 12 weeks?

Mathematical Operation(s):

Solution:

Complete sentence:

8. A search and rescue team is searching an area of 640 square miles. The team can cover 16 square miles per day. How many days will it take the team to complete the search?

Mathematical Operation(s):

Solution:

Complete sentence:

9. Tasha and Geneva are in a summer reading program. Tasha reads 50 pages every day and Geneva reads 5 more pages than Tasha every day. How many pages will Tasha read in 28 days?

Mathematical Operation(s):

Solution:

Complete sentence:

## Order of Operations with Whole Numbers

Name \_\_\_\_\_

Use the order of operations to complete each problem. Perform one operation at a time and write the answer in its place. Show each step vertically with an equal sign on each line. There are two examples to show you the proper form.

Example A.  $2 \cdot 3 + 4(7 + 2) = 2 \cdot 3 + 4(9)$   
 $= 6 + 36$   
 $= 42$

Example B.  $\frac{10 \div (18 - 16) + 20}{5^2} = \frac{10 \div 2 + 20}{25}$   
 $= \frac{5 + 20}{25}$   
 $= \frac{25}{25}$   
 $= 1$

1.  $16 \div 4 + 7(4)(2)$

2.  $40 \div 2 \cdot 5 + 1$

3.  $(8 - 3)^2 + (4 + 8)$

4.  $100 - 4(18 - 2 + 8)$

$$5. \frac{33+17}{2 \cdot 5}$$

$$6. 3\left(\frac{21}{7}\right) + 6(20)$$

$$7. \frac{2(2 \cdot 4^2 + 4)}{2 + 1 \cdot 2}$$

$$8. 10 + 2[36 - (18 - 6)]$$

$$9. \frac{32 + 12(9 - 1)}{(3^2 - 1)^2}$$

$$10. 105 - 2^3[1 + (12 \div 4)^2]$$