

Name: _____

Use your resource page and classwork examples to help you complete the following:

Part A:

Example: $10^5 = 10 \times 10 \times 10 \times 10 \times 10$

a.) $10^2 = \underline{\quad} \times \underline{\quad}$ b.) $10^3 = \underline{\quad} \times \underline{\quad} \times \underline{\quad}$ c.) $10^4 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$

Part B:

$38 \times 10^0 = \underline{\quad}$ $99 \times 10^1 = \underline{\quad}$ $12 \times 10^2 = \underline{\quad}$ $327 \times 10^3 = \underline{\quad}$

Part C:

Write the exponent in the box based on the products. Example: $256 \times 10^2 = 25,600$

$82 \times 10^{\square} = 8,200$

$95 \times 10^{\square} = 950,000$

$1,010 \times 10^{\square} = 101,000,000$

Part D: Review

Example: 45.178

$(4 \times 10) + (5 \times 1) + (1 \times 1/10) + (7 \times 1/100) + (8 \times 1/1000)$ *You can use .1, .01, .001 in place of fractions)

Forty-five and one hundred seventy-eight thousandths

73.134	Expanded form <u>with multiplication</u> :
	Word form:
87.065	Expanded form <u>with multiplication</u> :
	Word form:
822.317	Expanded form <u>with multiplication</u> :
	Word form:

Name: _____

Use your resource page and classwork examples to help you complete the following:

Part A:

Write the Powers of 10 for each of the following: Example: $100 = 10^2$

$1,000 = \underline{\hspace{2cm}}$

$10,000 = \underline{\hspace{2cm}}$

$100,000 = \underline{\hspace{2cm}}$

Part B:

$2.3 \times 10^2 = \underline{\hspace{2cm}}$

$2.3 \times 10^3 = \underline{\hspace{2cm}}$

$2.3 \times 10^4 = \underline{\hspace{2cm}}$

Part C:

$4.5 \times 10^{\square} = 450$

$4.5 \times 10^{\square} = 4,500$

$4.5 \times 10^{\square} = 450,000$

Part D: Review

Example: 45.178

$(4 \times 10) + (5 \times 1) + (1 \times 1/10) + (7 \times 1/100) + (8 \times 1/1000)$ *You can use .1, .01, .001 in place of fractions)

Forty-five and one hundred seventy-eight thousandths

76.439	Expanded form <u>with multiplication</u> :
	Word form:
732.099	Expanded form <u>with multiplication</u> :
	Word form:
688.53	Expanded form <u>with multiplication</u> :
	Word form:

Name: _____

Use your resource page and classwork examples to help you complete the following:

Part A:

$2.78 \times 10^2 = \underline{\hspace{2cm}}$

$12.3 \times 10^3 = \underline{\hspace{2cm}}$

$609.3 \times 10^2 = \underline{\hspace{2cm}}$

Part B:

$95.5 \div 10^2 = \underline{\hspace{2cm}}$

$25.85 \div 10^4 = \underline{\hspace{2cm}}$

$7.225 \div 10^1 = \underline{\hspace{2cm}}$

$9.793 \div 10^3 = \underline{\hspace{2cm}}$

Part C:

Write an expression for 1284.00 using a power of ten: _____

Write the power of ten for the following values: Example: $100 = 10^2$

$10,000 = \underline{\hspace{2cm}}$

$100,000 = \underline{\hspace{2cm}}$

$1,000,000 = \underline{\hspace{2cm}}$

Part D: Review

Example: 45.178

$(4 \times 10) + (5 \times 1) + (1 \times 1/10) + (7 \times 1/100) + (8 \times 1/1000)$ *You can use .1, .01, .001 in place of fractions)

Forty-five and one hundred seventy-eight thousandths

90.778	Expanded form <u>with multiplication</u> :
	Word form:
904.04	Expanded form <u>with multiplication</u> :
	Word form:
800.014	Expanded form <u>with multiplication</u> :
	Word form:

Name: _____

Use your resource page and classwork examples to help you complete the following:

Part A:

$19.6 \times 10^2 = \underline{\hspace{2cm}}$

$19.6 \times 10^3 = \underline{\hspace{2cm}}$

$19.6 \times 10^4 = \underline{\hspace{2cm}}$

Part B:

Which expression(s) have the value of 6.53? Circle **all** that apply.

a) $0.653 \div 10^1$

b) 6.53×10^0

c) $60.53 \div 10^2$

d) 0.0653×10^2

e) $65.30 \div 10^1$

f) 6.53×10^1

g) $762.00 \div 10^2$

Part C:

Complete the following chart by writing the equation using the powers of 10 and solve the equation.

Then, answer the following questions.

277.9		
Standard Form	Powers of 10	Solution
$\div 10$		=
$\div 100$		=
$\div 1,000$		=

What's happening each time you divide?

Is there a pattern?

Explain the pattern of the decimal point.

Name: _____

Use your resource page and classwork examples to help you complete the following:

Part A:

$4.77 \times 10^2 = \underline{\hspace{2cm}}$

$4.77 \times 10^3 = \underline{\hspace{2cm}}$

$4.77 \times 10^4 = \underline{\hspace{2cm}}$

Part B:

Explain the pattern in the number of zeros of the product when multiplying the following number by the given power of 10.

287×10^2

Part A: Explain the direction the decimal would be moved.

Part B: Explain number of spaces the decimal should be moved.

Part C: Use an alternate form to rewrite the expression above.

Part C:

Complete the following chart by writing the equation using the powers of 10 and solve the equation.

Then, answer the following questions.

244.88		
Standard Form	Powers of 10	Solution
$\div 10$		=
$\div 100$		=
$\div 1,000$		=

What's happening each time you divide?

Is there a pattern?

Explain the pattern of the decimal point.