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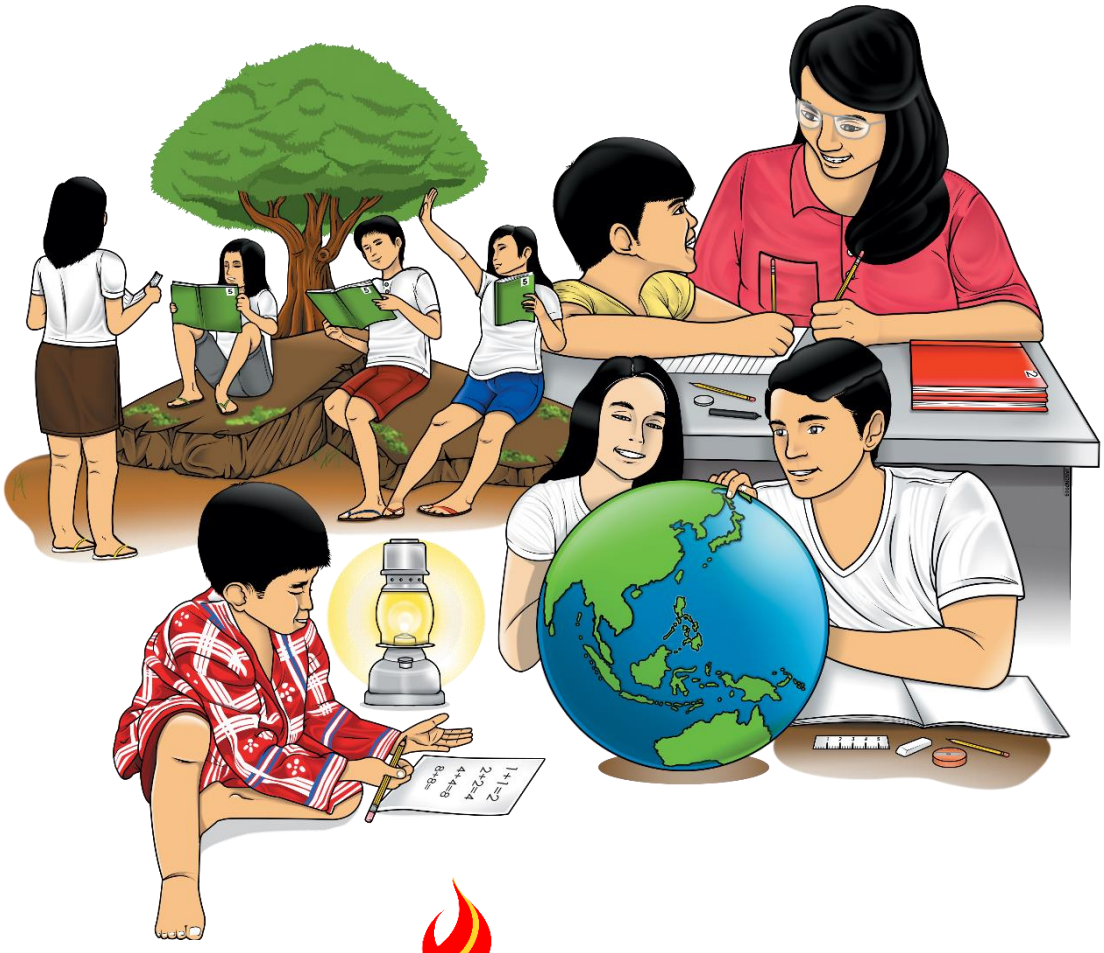
DEPARTMENT OF EDUCATION

Mathematics

Quarter 1 – Module 10: Scientific Notations & Solving Problems involving Real Numbers



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Quarter 1 – Module 10: Scientific Notations & Solving Problems involving Real Numbers
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Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by- step as you discover and understand the lesson prepared for you.

Pre-test are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module, or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teachers are also provided to the facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. Read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.

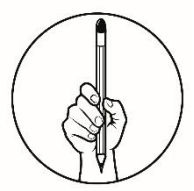
What I Need to Know

Congratulations on making this far! How is your real numbers journey on the previous module? Have you mastered the rules? This module will be exciting activities on the Scientific Notations. Good luck dear!

After using this module, you are expected to:

1. write numbers in scientific notations and vice versa; and
2. represents real-life situations and solve problems involving real numbers.

Learning Competency Code: M7NS-Ii-1 & M7NS-Ij-1



What I Know

I. Read each item carefully and choose the letter of the correct answer. Write your answer on the space before the number.

_____ 1. Which of the following represents a standard notation?
A. 2.30×10^2 B. 2.3×10^3 C. 0.000023 D. 2.3 x 1000

_____ 2. What is the standard notation of 1.06×10^4?
A. 16000 B. 10600 C. 1600000 D. 1060000

_____ 3. Earth's approximate distance from the Sun is about 1.4956×10^8 km. Which of the following notation represents the distance?
A. 1,495,600 B. 14,956,000 C. 149,560,000 D.1,495,600,000

_____ 4. It allows us to express a very small or very large number in a compact form.
A. Scientific Notation C. Real Numbers
B. Standard form D. Standard Notation

_____ 5. Which of the following could not be able to express in scientific notation?
A. 2.30000 B. 2/3 C. -0.000219 D. 32 million

_____ 6. In the given expression 7.03×10^{-2}, which of the following is the coefficient or the number part?
A. 7 B. 7.03 C. -2 D. 10

_____ 7. Which of the following represents 6.7×10^{-2} in standard notation?
A. 0.067 B. 0.0067 C. 670 D. 6700

_____ 8. According to the history, the first pandemic was the "Spanish flu", also known as the 1918 flu pandemic who killed about 10 million people. What is 10 million in scientific notation?
A. 1×10^6 B. 1×10^7 C. 1×10^5 D. 2×10^8

_____ 9. The planet Mercury has an estimated distance of 1.35×10^8 miles from the Sun. How far is Mercury from the Sun in standard notation?
A. 13,500 miles C. 13,500,000 miles
B. 1,350,000 miles D. 135,000,000 miles

_____ 10. Which of the following has the negative exponent on the 10 when converted into scientific notation?

A. 0.00089 B. 800009 C. -8000 D. 89

_____ 11. In his first month at school, Dave saved P128.00. At the next month at school, Dave saved P152.00. Then he donated P105.00 of his savings. How much money does Jim have left now?

A. P155.00 B. P165.00 C. P175.00 D. 185.00

_____ 12. Christine spent P2,100 for shoes. This was P700 less than twice what she spent for a blouse. How much was the blouse?

A. P1,000 B. P1,200 C. P1,400 D. P1,600

_____ 13. Today, Berto's age (B) is 4 times Carlo's age. In 4 years, what will Charlie's age be in terms of B?

A. 4B+4 B. 4(B+4) C. $\frac{B}{4}+4$ D. $\frac{B+4}{4}$

_____ 14. An ant moves forward 21.2 inches in one hour. It turns around and crawls 15.3 inches in the next hour. Finally, in the third hour, it turns around again and crawls 6.4 more inches. How much forward progress did the ant make in 3 hours?

A. 9.3 inches C. 11.3 inches

B. 10.3 inches D. 12.3 inches

_____ 15. A class of 50 students is divided into two groups; one group has eight less than the other; how many are in each group?

A. 21 & 29 B. 22 & 28 C. 23 & 27 D. 24 & 26

Good work! Now you are ready to take on some activities on Scientific Notations.

Lesson 1

Write Numbers in Scientific Notations

What's In

Previously, you have learned how to arrange numbers in increasing and decreasing order. Now, let us check your prior knowledge about it.

Try this!

Arrange the following set of numbers in increasing and decreasing orders.

1. **{3, -4, 0, 6, -2}**
   Increasing: _____ Decreasing: _____
2. **{2.5, 0.3, -5.25, -0.7, 1.2}**
   Increasing: _____ Decreasing: _____
3. **{2, 0.8, $-\sqrt{8}$, -4.7, $6\frac{1}{3}$}**
   Increasing: _____ Decreasing: _____

At this time, let us have a review about your past topic about multiplying numbers by powers of 10.

Find each product.

1. 0.042 x 10 = _____
2. 7.331 x 100 = _____
3. 0.125 x 1000 = _____
4. 1.031 x 0.1 = _____
5. 21.5 x 0.001 = _____

Notes to the Teacher

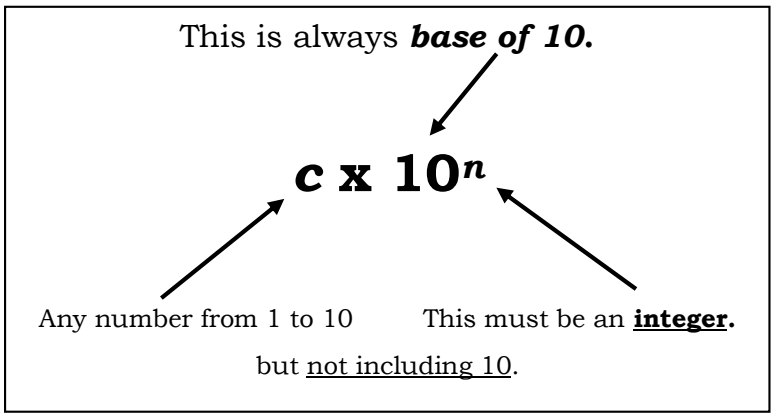
This module consists of problems about writing/expressing numbers in scientific notations. Please check the student's prior knowledge about rational numbers and powers of 10 since these are pre-requisite concepts of this lesson.

What's New

In 2007, the total number of mobile telephone subscribers was estimated at 57 300 000, almost 15 times more than the number of fixed-line telephone subscribers which is estimated at 3 900 000. Write the numbers of mobile telephone and fixed-line telephone subscribers in scientific notations.

What is It

Scientific notation simplifies the way we write very large and very small numbers in a compact form. The primary components of a number written in scientific notation are as follows:



So in a nutshell, scientific notation is composed of…

- a ***number part*** called ***coefficient*** or ***"c"*** (a number greater than or equal to 1 but less than 10)
- a number with ***base 10*** raised to an integer power ***(n)***.

The following are common numbers written in scientific notation. Try to see if you can find some pattern.

Common name	Decimal form	Power of 10	Scientific Notation
One millionth	0.000001	10^{-6}	1×10^{-6}
One thousandth	0.001	10^{-3}	1×10^{-3}
One hundredth	0.01	10^{-2}	1×10^{-2}
One tenth	0.1	10^{-1}	1×10^{-1}
One	1	10^{0}	1×10^{0}
Ten	10	10^{1}	1×10^{1}
One hundred	100	10^{2}	1×10^{2}
One thousand	1,000	10^{3}	1×10^{3}
One million	1,000,000	10^{6}	1×10^{6}
One billion	1,000,000,000	10^{9}	1×10^{9}
One trillion	1,000,000,000,000	10^{12}	1×10^{12}

A. How to Write Numbers in Scientific Notation

Steps in Writing Decimal Numbers into Scientific Notation

STEP 1: Identify the initial location of the *original decimal* point.
STEP 2: Identify the ***final location*** or "destination" of the original decimal point.

- The ***final location*** of the *original decimal* point must be directly **to the right of the first nonzero number**.

STEP 3: Move the *original decimal* point to its ***final location***.

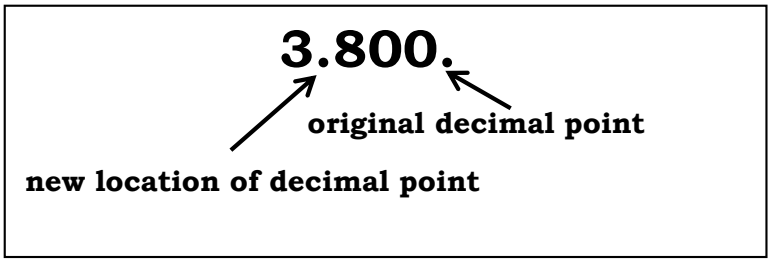
- You will get a number here called ***"c"***. Its value **must** be greater than or equal to 1, but less than 10.
- When the decimal is moved *towards the left*, the count for the exponent of base 10 should be *positive.*
- When the decimal is moved *towards the right*, the count for the exponent of base 10 should be *negative.*

STEP 4: Write *"c"* multiplied by some power of base 10. It should look something like this: $c \times 10^n$

Examples of How to Write Decimal Numbers into Scientific Notation *(Positive Power)*

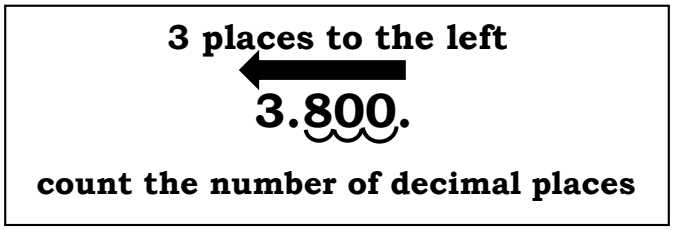
Example 1:
Rewrite the given decimal number **3,800** in scientific notation.

Solution:
We start by identifying where the original location of the decimal point, and its new location.



Now, we move the decimal point from the starting point to its *final destination* while counting the number of decimal places

- Remember the rule above, if the decimal is moved *towards the left*, the count for the exponent of base 10 is *positive.*



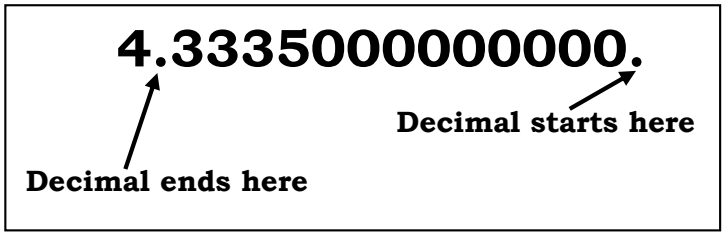
That makes our value of "*c*" as *c* = 3.8, and the **power of 10** is **3**. Putting them together in the required format, our final answer is

$$3.8 \times 10^3$$

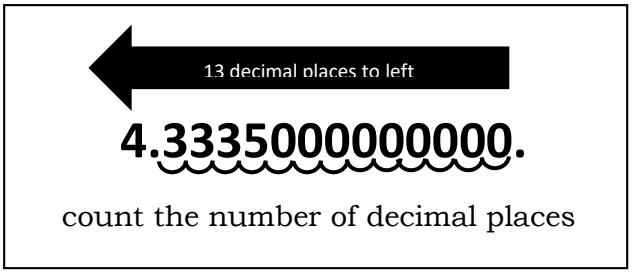
Always remember to make sure that "*c*" value always has the decimal point right after the first digit which is the case here. Great!

Example 2:
Rewrite the given decimal number **43,335,000,000,000** in scientific notation.

Solution:
The starting decimal point is on the far right. We need to move it to the *left* until we have a decimal number between 1 and 10.



Moving the decimal from right to left implies that the power of 10 will have a positive integer.



The value of the coefficient is c = 4.3335, and the **power of 10** becomes **13**. Therefore, the final answer of our scientific notation is just

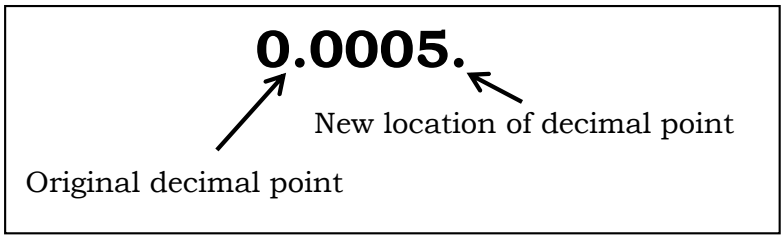
$$\mathbf{4.3335 \times 10^{13}}$$

B. Examples of How to Write Decimal Numbers into Scientific Notation *(Negative Power)*

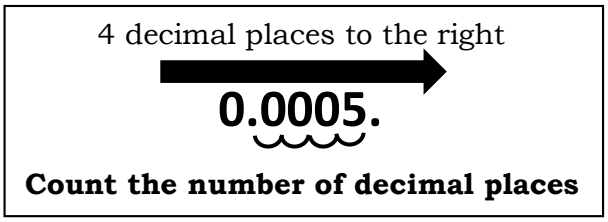
Example 1:
Rewrite the given decimal number **0.0005** in scientific notation.

Solution:
It is obvious that the original decimal point is to the left of the nonzero digit. We will move the decimal going to the *right.* The rule above states that

- When the decimal is moved *towards the right,* the count for the exponent of base 10 should be *negative.*



Moving the decimal point to the right should yield a **negative exponent for the base 10**.

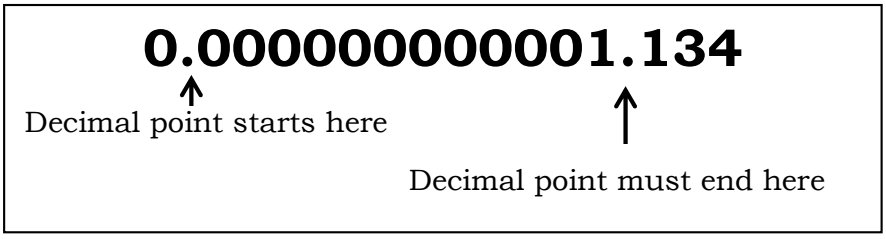


The value for coefficient is c = 5, and the **power of 10** is **-4**. Our final scientific notation answer should be

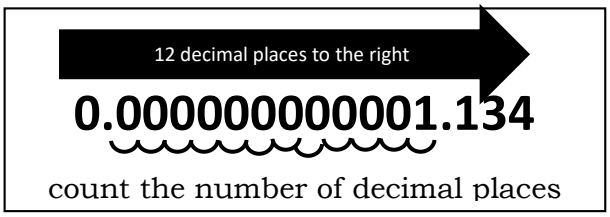
$$\mathbf{5 \times 10^{-4}}$$

Example 2:
Rewrite the given decimal number **0.000000000001134** in scientific notation.

Solution:
The given decimal number is less than 1, so we expect to move the decimal point *towards the right* such that it **stops after the first nonzero digit**.



Let's move the decimal point to the right, and it should accumulate a negative power of 10.



We have a coefficient value of c = 1.134, and base ten value of $\mathbf{10^{-12}}$. This gives us a scientific notation of

$$\mathbf{1.134 \times 10^{-12}}$$

That's it, folks! I hope you learn the basics of how to write a decimal number into its scientific notation form.

C. Convert Scientific Notation to a Standard Notation

Example 1:
Convert 3.456×10^4 in standard notation

Solution:

$3.456 \times 10^4 = 3.456 \times 10{,}000 =$ **34560**

Or since your multiplying a power of 10 positive, just move the decimal 4 units to the right

$3.456 \times 10^4 =$ 3.4560 **= 34560**

Example 2:
Convert 3.456×10^{-4} in standard notation

Solution:

$3.456 \times 10^{-4} = 3.456 \times .0001 =$ **0.0003456**

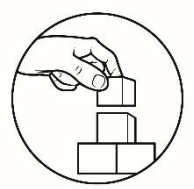
Or since your multiplying a power of 10 negative, just move the decimal 4 units to the left

$3.456 \times 10^{-4} =$ .0003456 **= 0.0003456**

Example 3:
A distance of Saturn to the Sun is about 8.84×10^8 miles.

Solution:

$8.84 \times 10^8 =$ 884000000. **= 884 000 000 miles**



What's More

A. Write each number in scientific notation:

1) 234550 = _____
2) 6607900 = _____
3) 0.006 = _____
4) 0.0012 = _____
5) 20,000 = _____
6) 0.00078 = _____
7) One Hundred Thousand = _____
8) One Hundred Thousandth = _____
9) 5 million = _____
10) 2,900 km = _____

B. Write the following numbers in standard notation:

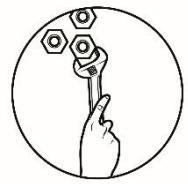
11) 2.34×10^{2} = _____
12) 1.06×10^{-3} = _____
13) 1.567×10^{5} = _____
14) 6.002×10^{-4} = _____
15) 8.79×10 = _____

What I Have Learned

To sum it up, let us complete the statements. Choose your answer from the box that best completes the statements below.

compact coefficient or "c" base 10 negative positive

1. Scientific notation allows us to express a very small or very large number in a form.
2. Scientific notation is composed of a number part called _____ (a number greater than or equal to 1 but less than 10).
3. Scientific notation is composed of a number with _____ raised to an integer power ***(n)***.
4. When the decimal is moved towards the left, the count for the exponent of base 10 should be _____.
5. When the decimal is moved towards the right, the count for the exponent of base 10 should be _____.



What I Can Do

Here is an another activity that will let you apply what you have learned about writing numbers in scientific notation by doing the following activities.

1. The speed of light is 186,000 miles per second, or about 671,000,000 miles per hour. How would you express these numbers in scientific notation?

2. The speed of sound depends on the type of medium and the temperature of the medium it is traveling through. The speed of sound in dry air at 15° C (59° F) is about 763 miles per hour. Rewrite this number in scientific notation.

3. The radius of a hydrogen atom is 2.5×10^{11} m. Express this number in standard notation.

Great work! You did a good job in applying what you have learned!

Lesson 2 Solving Problems involving Real Numbers

What's In

Evaluate the following real numbers:

	Answer
1. $/6/ + /5/$	
2. $0.5 \div 10$	
3. $\frac{2}{5} + \frac{3}{4}$	
4. $4 \times 1\frac{2}{3}$	
5. $\frac{1}{2} - \frac{1}{3}$	
6. $\left(\frac{4}{9}\right)\left(\frac{9}{2}\right)$	
7. $\frac{3}{7} + \frac{5}{7}$	
8. $-2 + (-2) + [-(10 + 5)]$	
9. the value of $x + y$ if $x = 5$ and $y = 7$	
10. $10^2 + 4^3$	

Notes to the Teacher

This module consists of word problems involving real numbers. Please check the student's literacy and numeracy level in performing activities.

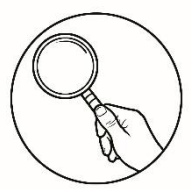
What's New

A cyclist is traveling 33 kilometers per hour from Koronadal City to Sto. Niño, South Cotabato. How many meters does the cyclist travel in one minute?

_____

_____

_____



What is It

This lesson is the culminating part on dealing about real numbers. It combines all the concepts and skills learned in the past lessons on real numbers.

In solving problems involving real numbers, mastery in performing fundamental operations on different properties are needed.

Examples:

1. There are 8 packs of fruit juice in a box. How many boxes needed if 40 people are attending the meeting with each receiving 6 packs of fruit juice?

Step 1:

What are the given? ***8 packs of fruit juice in a box, 40 people and each person will be receiving 6 packs***

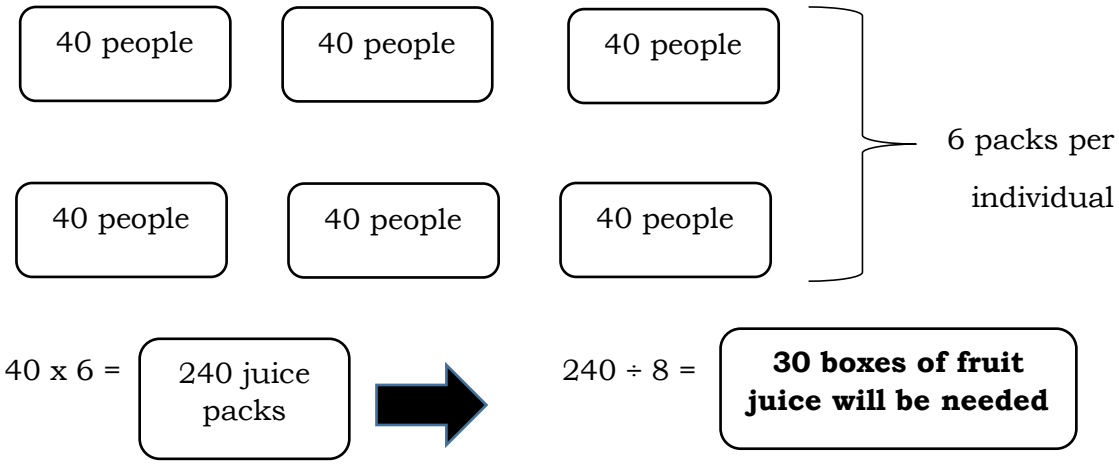
What do I need to find? ***Boxes of fruit juice needed***

Step 2:

What is the equation? **(40 x 6) ÷ 8**

Step 3:

Solve (you may create a visual representation to show your solution)



2. Lucas added three-fourths of a bag of soil to his garden while Matthew added six-fifths bags of soil to his garden. How much more soil did Matthew add than Lucas?

Step 1:

What are the given? ***Lucas added three-fourths of a bag of soil***

Matthew added six-fifths bags of soil to his garden

What do I need to find? ***The bag of soil Matthew added than Lucas***

Step 2:

What is the equation? $\frac{6}{5} - \frac{3}{4} = x$

Step 3:

Solve.

The LCD of 5 and 4 is 20. $\frac{6}{5} - \frac{3}{4} = \frac{\square - \square}{20}$

Divide 20 by 5 and multiplied by 6 $\frac{6}{5} - \frac{3}{4} = \frac{24 - \square}{20}$

Divide 20 by 4 and multiplied by 3 $\frac{6}{5} - \frac{3}{4} = \frac{24 - 15}{20}$

Subtract $\frac{6}{5} - \frac{3}{4} = \frac{24 - 15}{20} = \frac{9}{20}$

$x = \frac{9}{20}$

Answer: **Matthew added $\frac{9}{20}$ more bags of soil to his garden.**

3. Four years ago, Mark's age was half of the age he will be in 10 years. How old is he now?

Step 1:

What are the given?

Mark's age 4 years ago	Mark's age in 10 years	Half of the age he will be in 10 years
$x - 4$	$x + 10$	$\frac{1}{2}(x + 10)$

What do I need to find? ***Mark's present age***

Step 2:

What is the equation? $x - 4 = \frac{1}{2}(x + 10)$

Step 3:

Solve.

Let *x* be Mark's age now. (*Look at the question and put the relevant expressions above it*)

Equation $x - 4 = \frac{1}{2}(x + 10)$

Distributive property $x - 4 = \frac{1}{2}x + 5$

Addition property $x - \frac{1}{2}x = 5 + 4$

Combine like terms $\frac{1}{2}x = 9$

Divide both sides by $\frac{1}{2}$ $x = 18$

Answer: **Mark is now 18 years old.**

4. Zac has 1000 coins in his coin bank consisting of 10-peso coin and 5-peso coin. If the total cash is P5 500. How many of each type of coins are in the coin bank?

Step 1:

What are the given? ***Zac has 1000 coins in his coin bank consisting of 10-peso coin and 5-peso coin***

What do I need to find? ***Number of 10-peso coin and number of 5-peso coin***

Step 2:

What is the equation? $\mathbf{10}(\boldsymbol{x}) + \mathbf{5}(\mathbf{1000} - \boldsymbol{x}) = \mathbf{5\,500}$

Step 3:

Solve.

[number value of 10-peso coins]+ [number value of 5-peso coins] = P5 500

Equation	$\mathbf{10}\boldsymbol{x} + \mathbf{5}(\mathbf{1000} - \boldsymbol{x}) = \mathbf{5\,500}$
Distributive property	$\mathbf{10}\boldsymbol{x} + \mathbf{5000} - \mathbf{5}\boldsymbol{x} = \mathbf{5\,500}$
Addition property	$\mathbf{10}\boldsymbol{x} - \mathbf{5}\boldsymbol{x} = \mathbf{5\,500} - \mathbf{5000}$
Combine Like terms/Closure property	$\mathbf{5}\boldsymbol{x} = \mathbf{500}$
Divide both sides by 5/Cancellation property	$\boldsymbol{x} = \mathbf{100}$

Answer:

Let x = number of 10 peso coin	1000-x = number of 5 peso coin
x = 100	**1000 – 100 = 900**
There are 100 10-peso coin	**There are 900 5-peso coin**

5. On the last Mathematics quiz, Lani answered $\frac{4}{9}$ of the problems correctly while Mae answered $\frac{9}{10}$ of the item correctly. If each problem is worth the same amount, who got the higher score?

Step 1:

What are the given? ***Lani answered $\frac{4}{9}$ of the problems correctly while Mae answered $\frac{9}{10}$ of the item correctly***

What do I need to find? ***A student who got the higher score.***

Step 2:

What is the equation?

Lani	$\frac{4}{9}$
Mae	$\frac{9}{10}$

Step 3:

Solve.

	Lani	**Mae**
Cross multiply	$\frac{4}{9}$	$\frac{9}{10}$
Simplify	4 (10)	9 (9)
	40 < 81	

Answer: ***Mae got the higher score than Lani.***

What's More

Solve.

1. Lucio has 100 coins, all in 5 and 1 peso coins, amounting to Php180.00. How many 1 peso coins does he have?

2. On their previous exam, Rhea answered $\frac{5}{8}$ on the questions correctly and Precious answered $\frac{7}{11}$ of it correctly. If each problem is worth the same amount, who got the higher score?

3. It takes Jendy nine hours to pick fifty boxes of mangoes. Joy can pick the same amount in 11 hours. How long would it take them if they worked together? (in hours)

What I Have Learned

Fill in the blanks. Supply the missing terms in solving problem.

1. Alex is thrice as old as David. Four years ago, he was 4 times as old as David. How old are they now?

Let Alex = a

David = d

	4 years ago	**Present age**
Alex	$3d - 4$	?
David	$4(d - 4)$	?

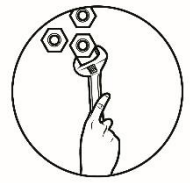
1._____ $3d - 4 = 4(d - 4)$

2._____ $3d - 4 = 4d - 16$

3._____ $3d - 4d = -16 + 4$

4._____ $-d = 12$

5._____ $d = 12$



What I Can Do

Read the situations carefully and answer is being asked. Show your solutions.

1. It takes Ellen 4 hours to paint one room. If Sam helps, it takes them 2 hours. How long would it take for Sam to paint one room alone?

2. Grace wants to buy a television worth 17, 800 pesos. If she buys it using her credit card, she needs to pay 2, 222 pesos for 9 months. How much more is the price of the television when purchased on credit card than in cash?

Great work! You did a good job in applying what you have learned!

Assessment

I hope you had a good time going over this module. For you to determine how much you've learned, please answer the questions by choosing the letter of the best answer.

I. Read each item carefully and choose the letter of the correct answer. Write your answer on the space before the number.

_____ 1. It allows us to express a very small or very large number in a compact form.
A. Scientific Notation C. Real Numbers
B. Standard form D. Standard Notation

_____ 2. Which of the following could not be able to express in scientific notation?
A. 2.30000 B. 2/3 C. 0.000219 D. 32 million

_____ 3. What is Four Hundred Thousand in scientific notation?
A. 4×10^{4} B. 4×10^{5} C. 4×10^{-4} D. 4×10^{-5}

_____ 4. Which of the following represents a standard notation?
A. 2.30×10^{2} B. 2.3×10^{3} C. 0.000023 D. 2.3×1000

_____ 5. According to the history, the first pandemic was the "Spanish flu", also known as the 1918 flu pandemic who killed about 10 million people. What is 10 million in scientific notation?

A. 1×10^6 B. 1×10^7 C. 1×10^5 D. 2×10^8

_____ 6. Earth's approximate distance from the Sun is about 1.4956×10^8 km. Which of the following notation represents the distance?

A. 1,495,600 C. 149,560,000

B. 14,956,000 D.1,495,600,000

_____ 7. The planet Mercury has an estimated distance of 1.35×10^8 miles from the Sun. How far is Mercury from the Sun in standard notation?

A. 13,500 miles C. 13,500,000 miles

B. 1,350,000 miles D. 135,000,000 miles

_____ 8. When 2 million converted into scientific notation, what is the power of 10 to complete the task?

A. 3 B. 4 C. 5 D. 6

_____ 9. Which of the following has the negative exponent on the 10 when converted into scientific notation?

A. 0.00089 B. 800009 C. 8000 D. 89

_____ 10. In the given expression 7.03×10^2, which of the following is the coefficient or the number part?

A. 7 B. 7.03 C. 2 D. 10

_____ 11. Christine spent P2,100 for shoes. This was P700 less than twice what she spent for a blouse. How much was the blouse?

A. P1,000 B. P1,200 C. P1,400 D. P1,600

_____ 12. A class of 50 students is divided into two groups; one group has eight less than the other; how many are in each group?

A. 21 & 29 B. 22 & 28 C. 23 & 27 D. 24 & 26

_____ 13. Today, Berto's age (B) is 4 times Carlo's age. In 4 years, what will Charlie's age be in terms of B?

A. 4B+4 B. 4(B+4) C. $\frac{B}{4} + 4$ D. $\frac{B+4}{4}$

_____ 14. An ant moves forward 21.2 inches in one hour. It turns around and crawls 15.3 inches in the next hour. Finally, in the third hour, it turns around again and crawls 6.4 more inches. How much forward progress does the ant make in 3 hours?

A. 9.3 inches C. 11.3 inches

B. 10.3 inches D. 12.3 inches

_____ 15. In his first month at school, Dave saved P128.00. At the next month at school, Dave saved P152.00. Then, he donated P105.00 of his savings. How much money does Jim have left now?

A. P155.00 B. P165.00 C. P175.00 D. 185.00

Additional Activities

Think About This!

A. Explain how to write each number in scientific notation.

1. 0.0000000081

2. 945 000 000 000

B. Word Problems.

1. Grade 7 - Ruby is having an election to decide whether they will go on an educational tour. They will have an educational tour if more than 50% of the class will vote **YES**. Assume that every member of the class will vote. If 24% of the girls and 18% of the boys will vote **YES**, will the class go on the educational tour? Explain

2. Two students are vying to represent their school in the national chess competition. Mara won 10 of the 15 games she played this year, while Clara won 6 of the 10 games she played this year. If you were the principal of the school, which student would you choose? Explain

Answer Key

What I Know

1. C
2. B
3. C
4. A
5. C
6. B
7. A
8. B
9. D
10. A
11. C
12. C
13. C
14. D
15. A

What's More *(Lesson 1)*

A.

1) 2.3455×10^{5}
2) 6.6079×10^{6}
3) 6×10^{-3}
4) 1.2×10^{-3}
5) 2×10^{4}
6) 7.8×10^{-4}
7) 1×10^{5}
8) 1×10^{-5}
9) 5×10^{6}
10) 2.9×10^{3}

B.

11) 234
12) 0.00106
13) 156700
14) 0.0006002
15) 87.9

What I Can Do *(Lesson 1)*

1. 1.86×10^{5} miles per second and 6.71×10^{8} miles per hour
2. 7.63×10^{2} miles per hour
3. 0.000000000025

What I have learned *(Lesson 1)*

1. compact
2. coefficient or “c”
3. base 10
4. negative
5. positive

Assessment

1. A
2. C
3. B
4. C
5. B
6. C
7. D
8. D
9. A
10. B
11. C
12. A
13. C
14. D
15. C

What I have Learned (Lesson 2)

	4 years ago	Present age
Alex	3d – 4	36
David	4(d – 4)	12

1. Equation
2. Distributive property
3. Addition property
4. Combine like terms/Closure Property
5. Divide both sides by -1/Cancellation Property

What I can Do (Lesson 2)

1. 44 and 45
2. 4 hours
3. 2, 198 pesos

What's More (Lesson 2)

1. There are 80 1-peso coin
2. Precious
3. 4.95 hours

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