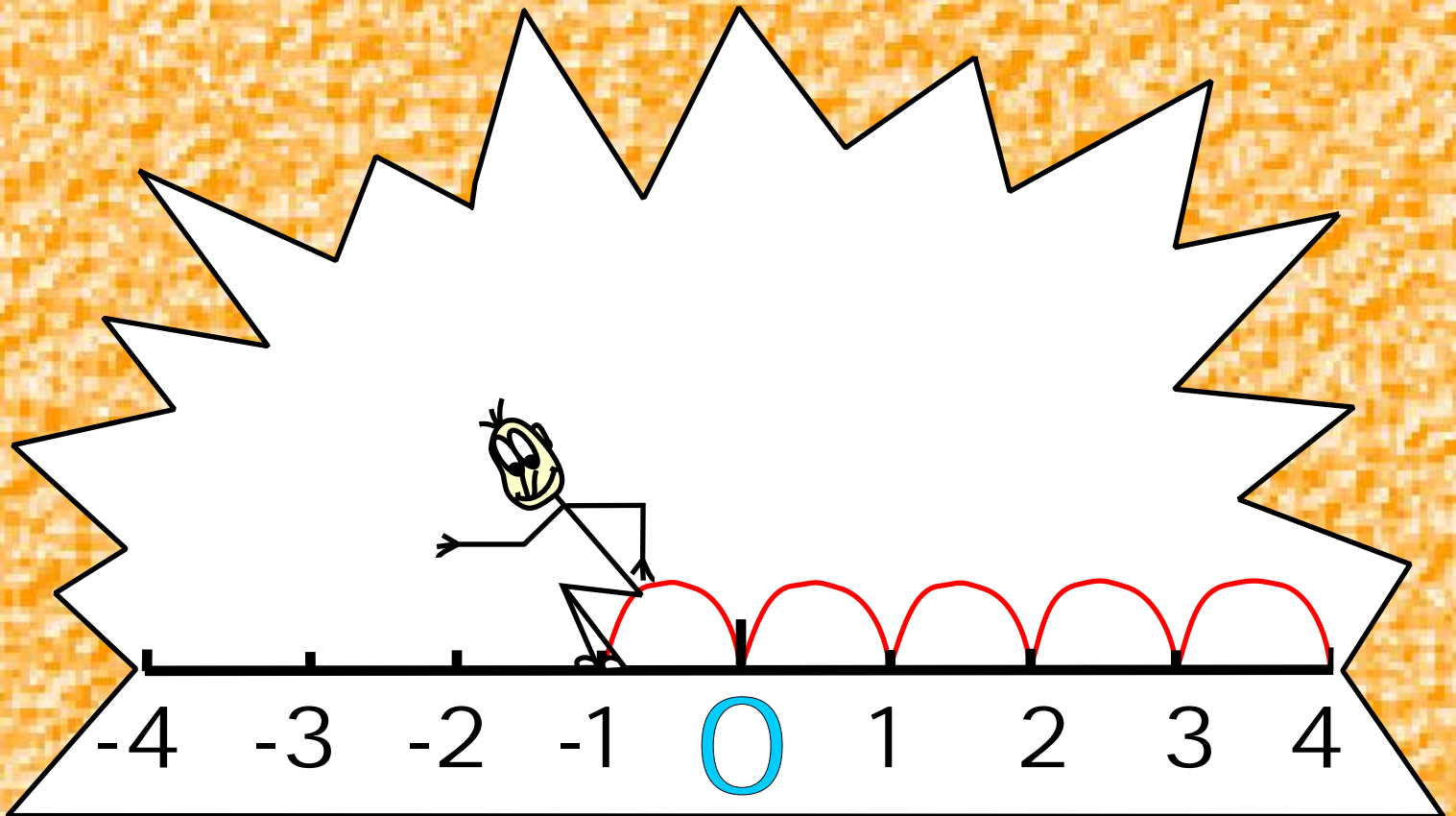


Number Sense

From the *Just Turn & Share*™ Centers Series

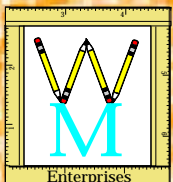
Kathryn Robinson



Real-World Mathematics

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Grades 3 - 5



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Just Turn & Share™
Math Centers Series



Number Sense

Volume 10

(Grades 3 – 5)

Real-World
Mathematics
that
students
understand

Kathryn Robinson

W
M WriteMath Enterprises
Valrico, Florida

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10

- I dedicate this series to my husband, Steve Robinson, for advising, supporting, guiding, and editing years of work and making my dreams possible.
- I would also like to dedicate this series to my brother-in-law, Michael Ghormley, for his expert mathematical advice, patience, and willingness to answer my constant questions over a period of several years.

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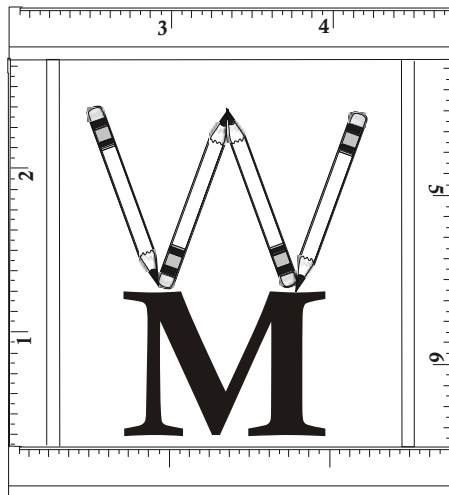
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Answer Sheet129



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Number Sense

works with

mathematical properties,

numerical expressions,

number lines,

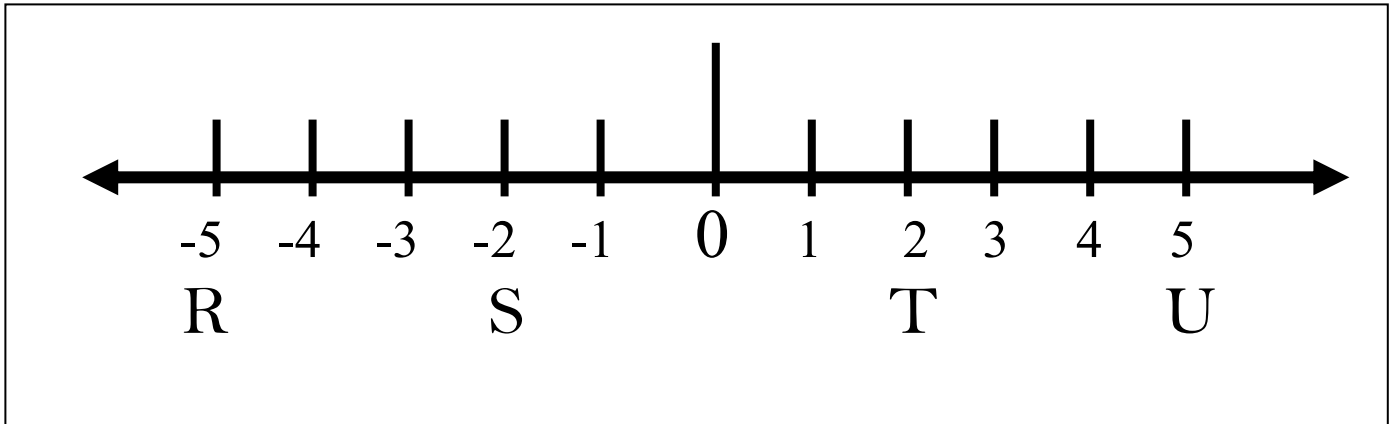
and numerical manipulations.

So go ahead...

Just Turn & Share

Number Sense

(Day #1)



A. What is the value of “T”?

B. Fill in: $>$, $<$, or $=$

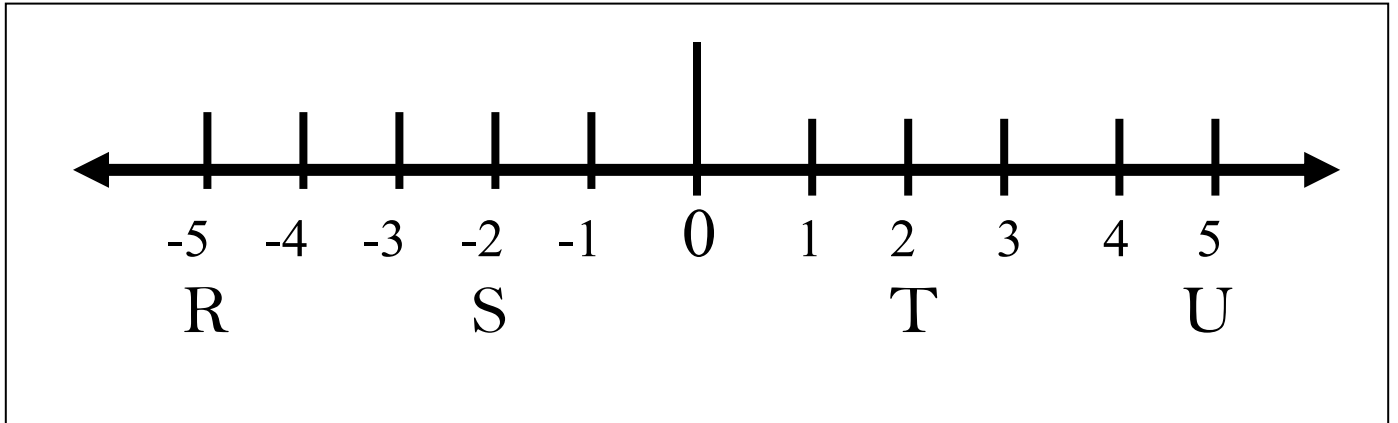
T () U

C. What is the value of one unit $>$ “T”?

EVERYONE: A, B, & C

Number Sense

(Day #2)



A. What is the value of “U”?

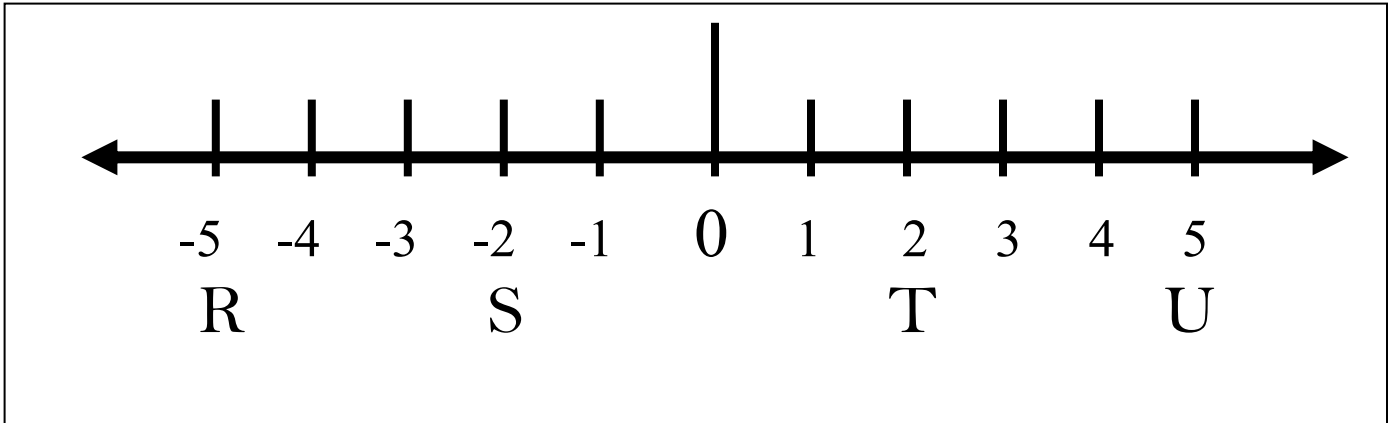
B. Fill in: $>$, $<$, or $=$
T () R

C. What is the value of one unit $>$ “U”?

EVERYONE: A, B, & C

Number Sense

(Day #3)



A. What is the value of “S”?

B. Fill in: $>$, $<$, or $=$

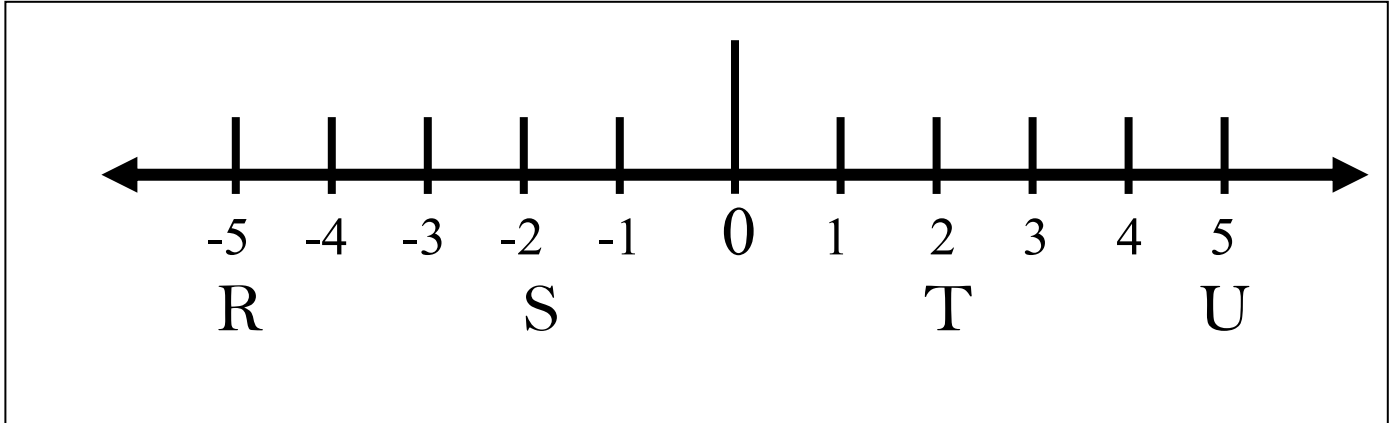
R () U

C. What is the value of one unit $>$ “S”?

EVERYONE: A, B, & C

Number Sense

(Day #4)



A. What is the value of “R”?

B. Fill in: $>$, $<$, or $=$
R () S

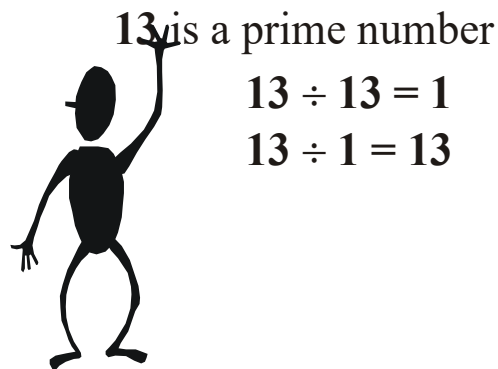
C. What is the value of one unit $>$ “R”?

EVERYONE: A, B, & C

Prime & Composite Numbers

Prime numbers are whole numbers that are greater than 1 and can **only be divided** by the **number itself and 1**.

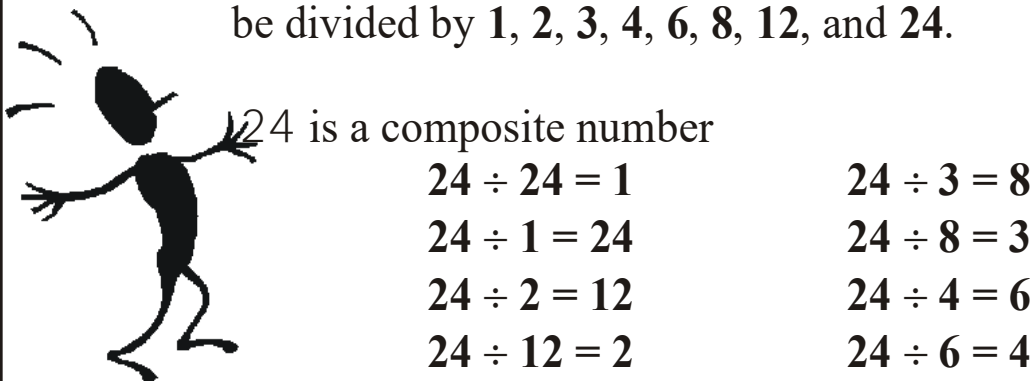
13 is a prime number because it can **only** be divided by itself (13) and 1:



These are **prime numbers**: 3, 5, 7, 11, 13, 17, etc.

Composite numbers are whole numbers that are greater than 1 and can be **divided by more than two factors**.

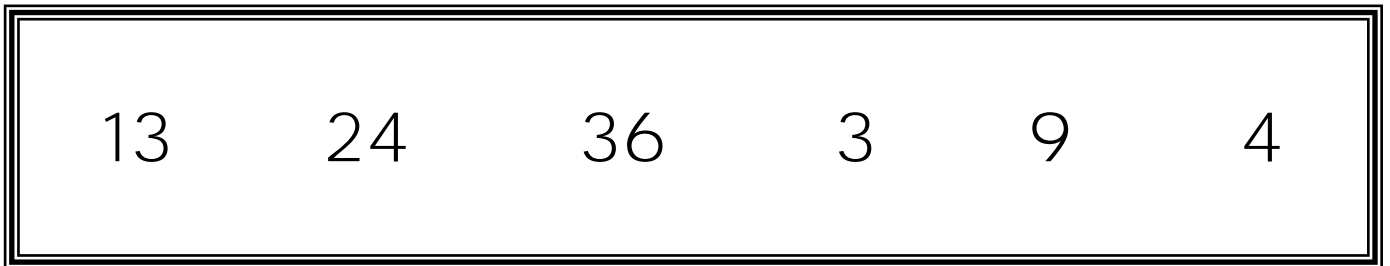
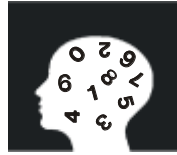
24 is a composite number because it can be divided by 1, 2, 3, 4, 6, 8, 12, and 24.



These are **composite numbers**: 6, 12, 15, 21, etc.

Number Sense

(Day #1)



A. Describe the numbers in the box as:
odd numbers **even numbers** **mixed**

B. Name the even numbers in the box.

*** Refer to the **Prime & Composite Numbers Information.**

C. Name the prime numbers in the box.

D. Name the prime number in the box that is greater in value than 10, but less than 20.

E. In the following pattern, what number belongs in the blank? 6, 12, 18, 24, ?, 36

* A & B

** B, C, & D

*** A, D, & E

Number Sense

(Day #2)



13 24 36 3 9 4

- A. Name the odd numbers in the box.
- B. Name a number in the box that is one greater than twice 6.

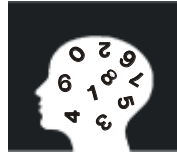
*** Refer to the Prime & Composite Numbers Information.

- C. Name the composite numbers in the box.
- D. Name the composite number in the box that is greater in value than 1, but less than 5.
- E. In the following pattern, what number belongs in the blank? 7, 14, ?, 28, 35

* A & C
** A, D, & E
*** B, C, & E

Number Sense

(Day #3)



13	24	36	3	9	4
----	----	----	---	---	---

- A. Name the even numbers in the box that are greater in value than 10.
- B. Name the odd number that is four times greater than another number in the box.

*** Refer to the **Prime & Composite Numbers Information.**

- C. Name the prime number in the box that is greater in value than 5.
- D. Name the prime number in the box that has a value less than 10.
- E. In the following pattern, what number belongs in the blank? 10, ?, 20, 25, 30

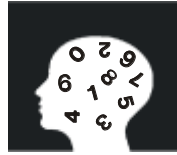
* A & E

** B, C, & D

*** A, D, & E

Number Sense

(Day #4)



13	24	36	3	9	4
----	----	----	---	---	---

- A. Name the even number in the box that is less in value than 20.
- B. Name the number in the box that is six times the value of an even number in the box.

*** Refer to the **Prime & Composite Numbers Information**.

- C. Name the prime number in the box that is greater in value than 5.
- D. Name the composite number in the box that is four times the value of six.
- E. In the following pattern, what number belongs in the blank? 9, 18, 27, ?, 45

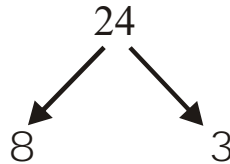
- * A & C
 ** A, D, & E
 *** B, C, & E

Factor Tree

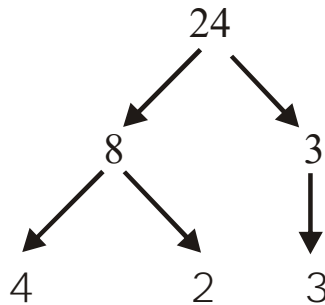
- To create a factor tree, write the number that you wish to factor at the top of the tree (24).

24

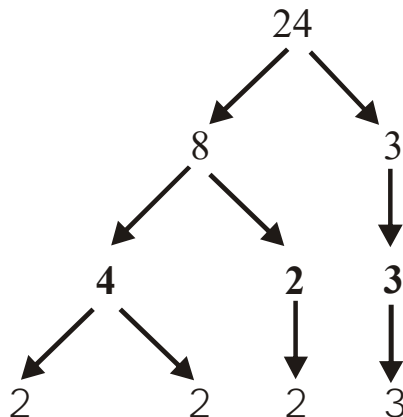
- Branch out with two factors for the number.



- If the numbers are composite numbers (8), find two more factors for this number. If the factor is a prime number (3), recopy it on the new level of the tree. *(The number '3' has been factored as low as it can go.)*



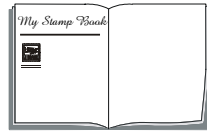
- Continue finding factors at each level of the tree until all of the numbers are prime numbers on one level.



- If all the number on one level of the tree are prime numbers (2, 2, 2, 2, 3), then the number at the top of the tree (24) has been completely factored.

Number Sense

(Day #1)



A. Jill collects stamps. Her new album will hold 10 Asian stamps on every page. She inserted enough stamps to fill 6 pages completely with 3 stamps extra. Which operations will she fill in the boxes to find the total number of stamps that she has collected? $10 \square 6 \square 3$

- and x x and + + and -

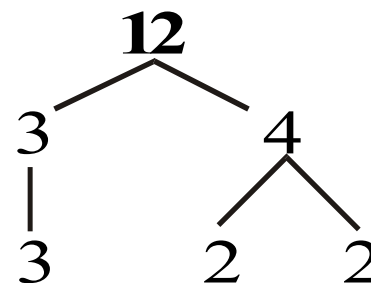
B. Which property can Jill apply to the **10** and **6** in problem “A”? • commutative • identity property • zero

C. Write the number that completes this number sentence.
 $9 + (1 \times 11) = (11 \times \underline{\quad}) + 9$

D. Which number is greater in value than -1 ?
-5 -3 0

**** Refer to the Factor Tree Information.**

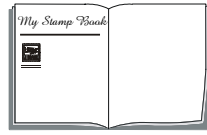
E. Has the number ‘**12**’ been completely factored? How do you know?



- * A & B
- ** B, C, & D
- *** A, D, & E

Number Sense

(Day #2)



- A. Alex collects stamps. His album will hold 72 stamps. He inserted enough stamps to fill 9 pages completely. Which operation will he fill in the box to find the number of pages that he filled in the album?

$$72 \square 9$$

x

+

-

÷

- B. Which property can Alex apply to the **72** and **9** in problem “A”? • commutative • none • associative
- C. Write the number that completes this number sentence.

$$6 \times 2 = 2 \times \square$$

- D. Which number is greater in value than -11 ?

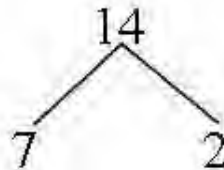
-15

-4

-25

**** Refer to the Factor Tree Information.**

- E. Has the number ‘**14**’ been completely factored? How do you know?



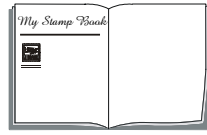
*** A & C**

**** A, D, & E**

***** B, C, & E**

Number Sense

(Day #3)



- A. Tim collects stamps. His album has 10 pages of Japanese stamps. Each page will hold five stamps. Which operation will he fill in the box to find the number of stamps that he has placed in the album?

$$10 \square 5$$

x

+

-

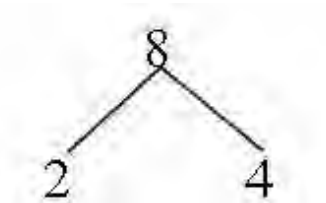
÷

- B. Which property can Tim apply to the **10** and **5** in problem “A”? • commutative • identity • none
- C. Write the number that completes this number sentence.
 $7 \times (2 + 6) = (7 \times 2) + (\underline{\quad} \times 6)$

- D. Which number is less in value than -8 ?
8 **-1** **-10**

** Refer to the Factor Tree Information.

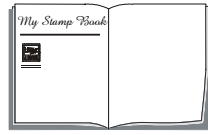
- E. Has the number ‘8’ been completely factored? How do you know?



- * A & B
 ** B, C, & D
 *** A, D, & E

Number Sense

(Day #4)



- A. Sandy collects stamps. She inserted 12 stamps on Monday, 15 stamps on Tuesday, and 32 stamps on Friday. Which operations will she fill in the boxes to find the total number of stamps that she has inserted?

$$12 \square 15 \square 32$$

+ and x

÷ and +

+ and +

- B. Which property can Sandy apply to the **12**, **15**, and **32** in problem “A”? • commutative • identity • none

- C. Write the number that completes this number sentence.

$$4 \times 95 = \underline{\quad} \times 4$$

- D. Which number is less in value than -12 ?

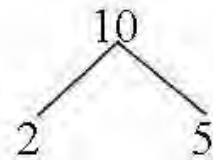
-5

0

-13

** Refer to the Factor Tree Information.

- E. Has the number ‘10’ been completely factored? How do you know?



* A & C

** A, D, & E

*** B, C, & E