

Algebra

Adventures

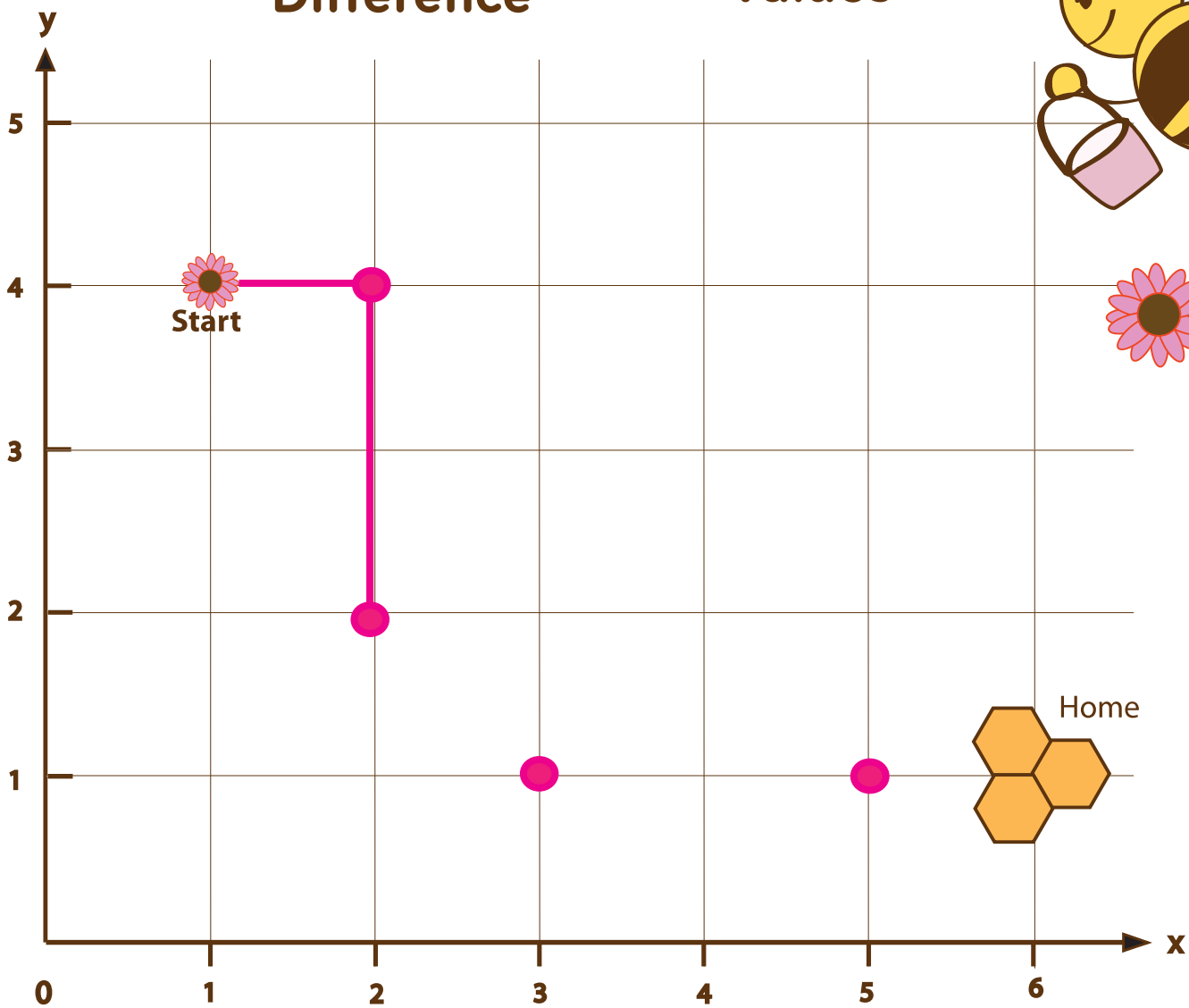
4th
Grade

Coordinates

Points

Difference

Values



(x, y)

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Certificate of Completion

Answer Sheets

** Has an Answer Sheet*

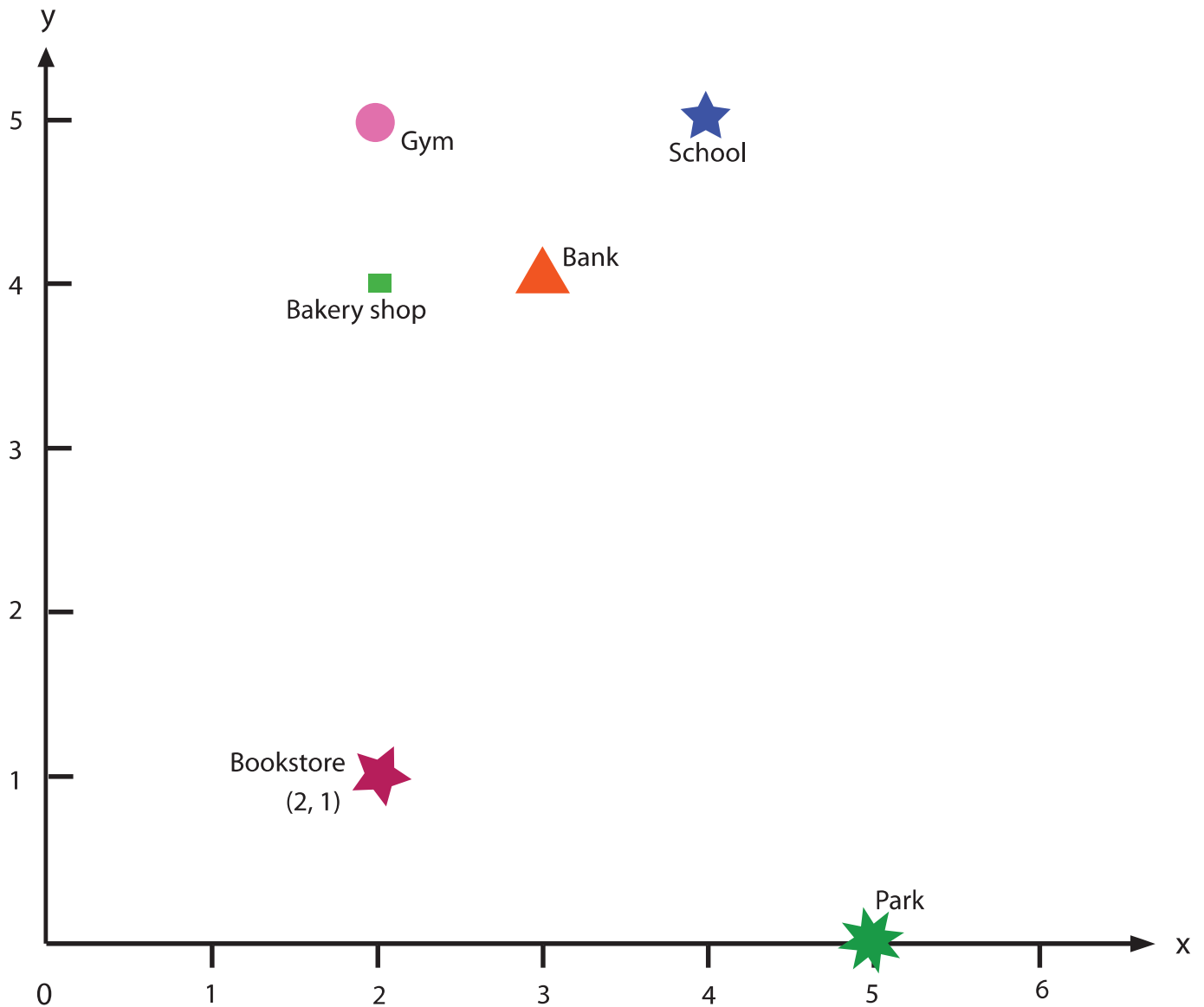
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Where are they?: Tell the position

Your friend is new in town. Tell her positions of a store, bank, and school using X and Y Coordination. Write the coordinates of each place next to the position (look at the example).

Then, answer questions below.

Review: The first number refers to X coordinate. The second number refers to Y coordinate.



What is the x-coordinate of the school?

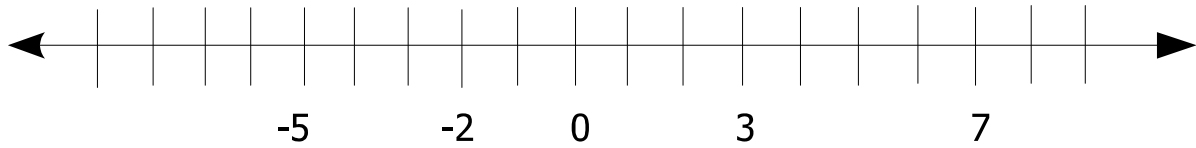
What is the y-coordinate of the park?

Mark on a grid a position of a train station which is (3, 2).

Mark on a grid a position of a community center which is (6, 3).

Introduction to Integers

Fill in the missing numbers to complete the number line.



Fill in the blanks with neutral, positive or negative.

Zero is a _____ integer.

A whole number less than zero is a _____ integer.

A whole number greater than zero is a _____ integer.

Whole numbers that are _____ integers can be written with or without a sign.

Circle the integers.

-4 $\frac{1}{2}$ 3 -2 0 $\frac{3}{4}$ +6 8 -7 $\frac{1}{4}$ 1 +9

Match the opposite integers.

3 5 2 4 1 6 7

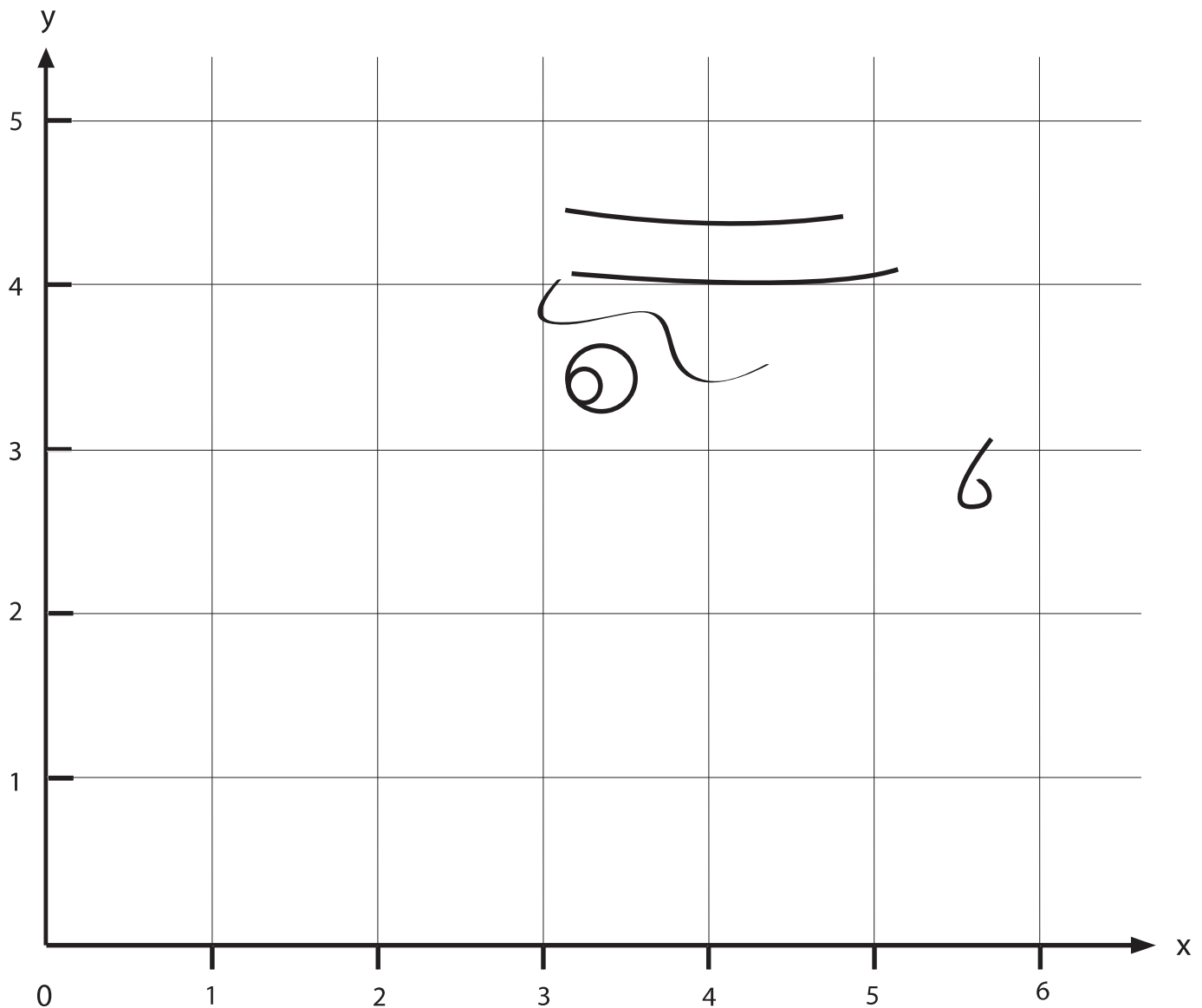
-5 -2 -3 -6 -7 -4 -1



Plot a dot, Draw a line, What do you find?

Can you find the hidden image? Plot the coordinates in order, draw a line between each one, and see what figure appears! Remember, the first number is on the X axis and the second number is on the Y axis.

- | | | |
|---------------|--------------|----------------|
| 1. (3, 0) | 9. (2, 4.5) | 17. (6, 3.5) |
| 2. (1, 1.5) | 10. (3, 4.5) | 18. (6, 2.5) |
| 3. (3.5, 1.5) | 11. (3, 5) | 19. (5.5, 2.5) |
| 4. (4, 2) | 12. (5, 5) | 20. (4.5, 0) |
| 5. (2, 2) | 13. (5, 4.5) | |
| 6. (2.5, 2.5) | 14. (6, 4.5) | |
| 7. (1.5, 2.5) | 15. (5.5, 4) | |
| 8. (3, 4) | 16. (5.5, 3) | |

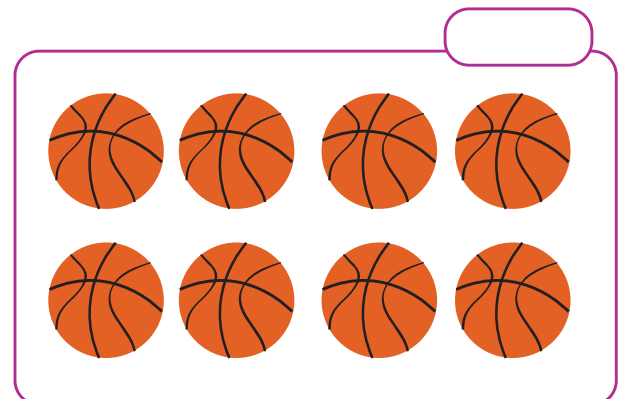
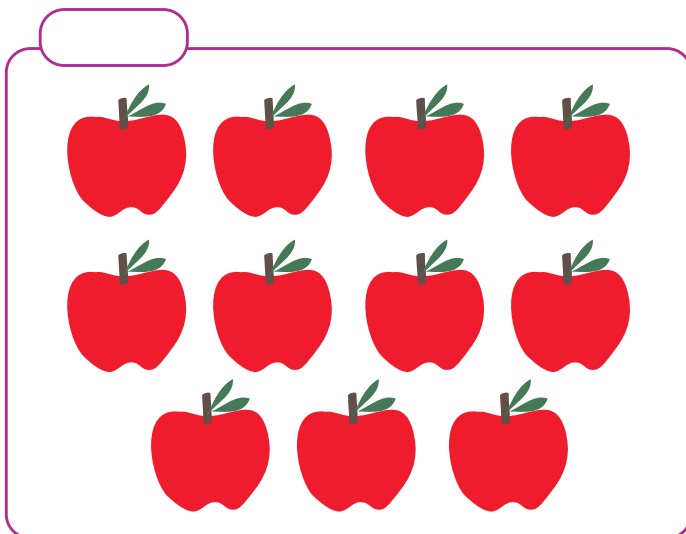
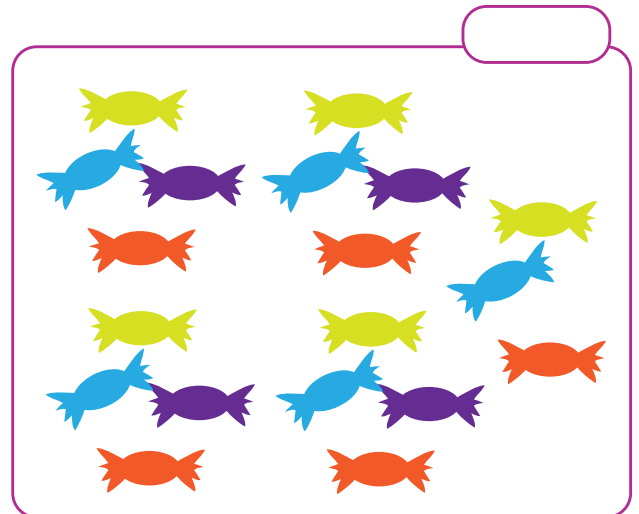
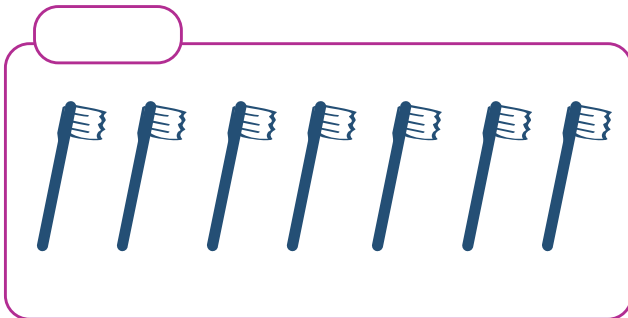
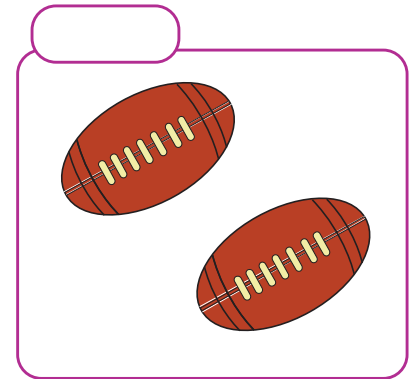
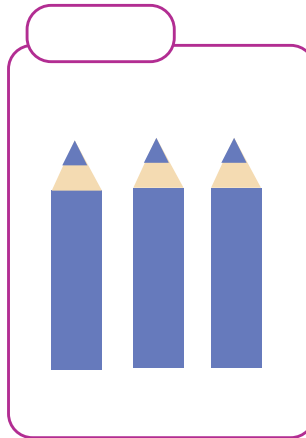
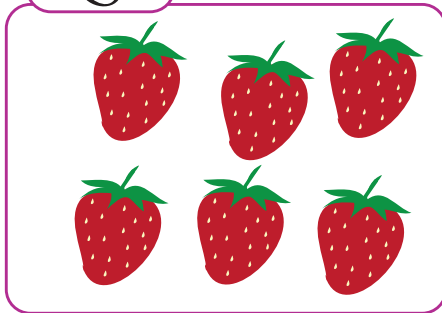


Prime Numbers VS. Composite Numbers

A prime number is a whole number that can only be divided evenly by 1 or itself.
A composite number is a whole number that can be divided evenly by at least one number other than 1 and itself.

Look at the objects in the boxes below. Write "P" if the number of objects in the box is a prime number and "C" if the number of objects is a composite number. See the example.

C



Finding Factors

Factors are numbers that you multiply together to get another number. For example, 2 multiplied by 4 equals 8. So 2 and 4 are the factors of 8.

Find the factors of the numbers below. See the example.

$10 = \underline{2 \times 5}$

$18 = \underline{\hspace{2cm}}$

$24 = \underline{\hspace{2cm}}$

$30 = \underline{\hspace{2cm}}$

$32 = \underline{\hspace{2cm}}$

$39 = \underline{\hspace{2cm}}$

Find the missing factors.

$15 = 3 \times \boxed{\hspace{1cm}}$

$21 = 3 \times \boxed{\hspace{1cm}}$

$45 = 9 \times \boxed{\hspace{1cm}}$

$42 = 7 \times \boxed{\hspace{1cm}}$

$36 = 2 \times 2 \times 3 \times \boxed{\hspace{1cm}}$

$60 = 2 \times 3 \times 2 \times \boxed{\hspace{1cm}}$

$75 = 5 \times 3 \times \boxed{\hspace{1cm}}$

* When the factor is a prime number, it is called a prime factor.



Least Common Multiple: Easy

A *multiple* is the product of two integers. To find the multiples of a certain number, multiply that number by every integer, starting with 1.

Example: The multiples of 2 are 2, 4, 6, 8, 10, and so on.

Common multiples are numbers that share one or more of the same multiples.

Example: Multiples of 2 are 2, 4, 6, 8, 10, 12 and so on.

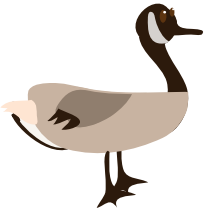
Multiples of 3 are 3, 6, 9, 12, 15, and so on.

6 and 12 appear in these lists, so they are common multiples of 2 and 3.

Least common multiple (LCM) is the smallest common multiple of two or more numbers.

From the example above, the LCM of 2 and 3 is 6.

LCM can be found by listing the multiples and looking for the smallest common one in the lists.



Circle the common multiples of the pair of numbers, then answer the questions.

Multiples of 4 = 4, 8, 12, 16, 20 ...

Multiples of 5 = 5, 10, 15, 20, 25, ...

The common multiple is: _____ .

The LCM is _____ .

Multiples of 6 = 6, 12, 18, 24, 30, 36, 42, ...

Multiples of 7 = 7, 14, 21, 28, 35, 42, 49, ...

The common multiple is: _____ .

The LCM is _____ .

Multiples of 8 = 8, 16, 24, 32, 40, ...

Multiples of 10 = 10, 20, 30, 40, 50, ...

The common multiple is: _____ .

The LCM is _____ .

Multiples of 9 = 9, 18, 27, 36, 45, 54, 63, ...

Multiples of 12 = 12, 24, 36, 48, 60, 72, ...

The common multiple is: _____ .

The LCM is _____ .

Fill in the blanks and find the least common multiples below.

Multiples of 2 = 2, _____, _____, _____, _____, 12, ...

Multiples of 3 = 3, _____, _____, _____, _____, 18, ...

The common multiples are: _____ .

The LCM is _____ .

Multiples of 3 = 3, _____, _____, _____, _____, _____, ...

Multiples of 4 = 4, _____, _____, _____, _____, _____, ...

The common multiples are: _____ .

The LCM is _____ .

Prime Numbers

A prime number is a whole number that can only be divided evenly by 1 or itself. For example, 2 is a prime number because the only numbers that it can be divided by evenly are 2 and 1. Circle all the prime numbers in the box below.

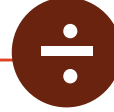
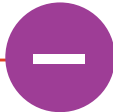
2	17	5	11
13	3	19	37
41	35	6	63
18	81	44	62
77			22

Circle the bags that contain a prime number of gumdrops.



Find The Missing Operation #2

Add the operation symbols: addition(+), subtraction(-), multiplication(x), or division(\div) to complete the equation.



$$(8 - 5) \text{ () } 6 = 9$$

$$(7 + 4) \text{ () } 7 = 18$$

$$(12 + 6) \text{ () } 4 = 14$$

$$(22 - 3) \text{ () } 9 = 10$$

$$(3 \times 7) \text{ () } 4 = 25$$

$$(6 \times 5) \text{ () } 3 = 33$$

$$(4 \times 2) \text{ () } 6 = 48$$

$$(3 \times 3) \text{ () } 2 = 11$$

$$(30 - 15) \text{ () } 3 = 5$$

$$(10 - 2) \text{ () } 7 = 56$$

$$(24 - 10) \text{ () } 1 = 14$$

$$(7 \times 7) \text{ () } 3 = 52$$

$$(100 - 80) \text{ () } 4 = 5$$

$$(45 - 18) \text{ () } 9 = 3$$

Factor Tree

Factors are numbers that you multiply together to get another number. Every number can be broken down into factors. Complete the factor tree below by filling in the missing factors.

