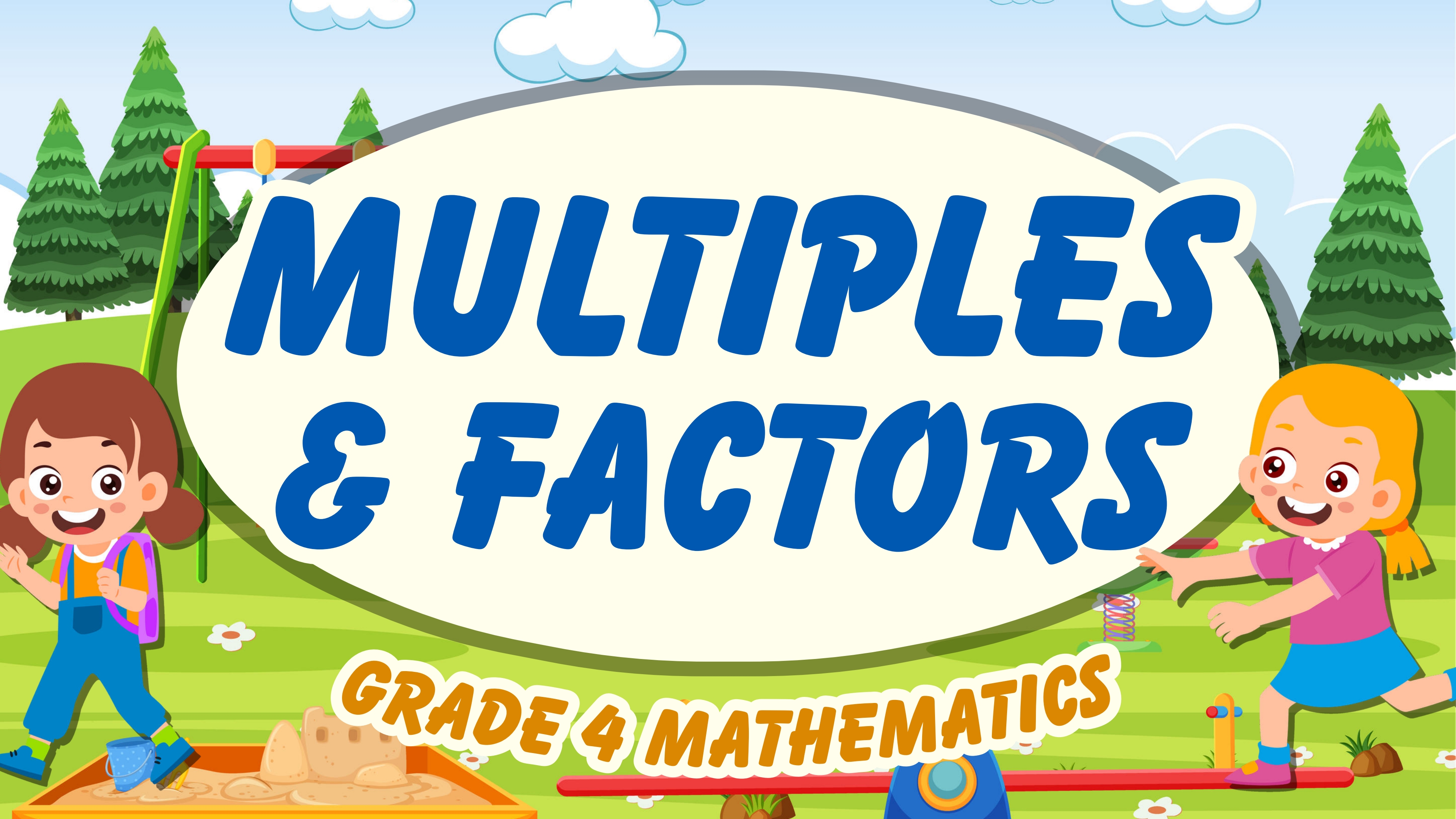


MULTIPLES & FACTORS

GRADE 4 MATHEMATICS



LEARNING OBJECTIVES

1

Identify the multiples of a given number up to 100;

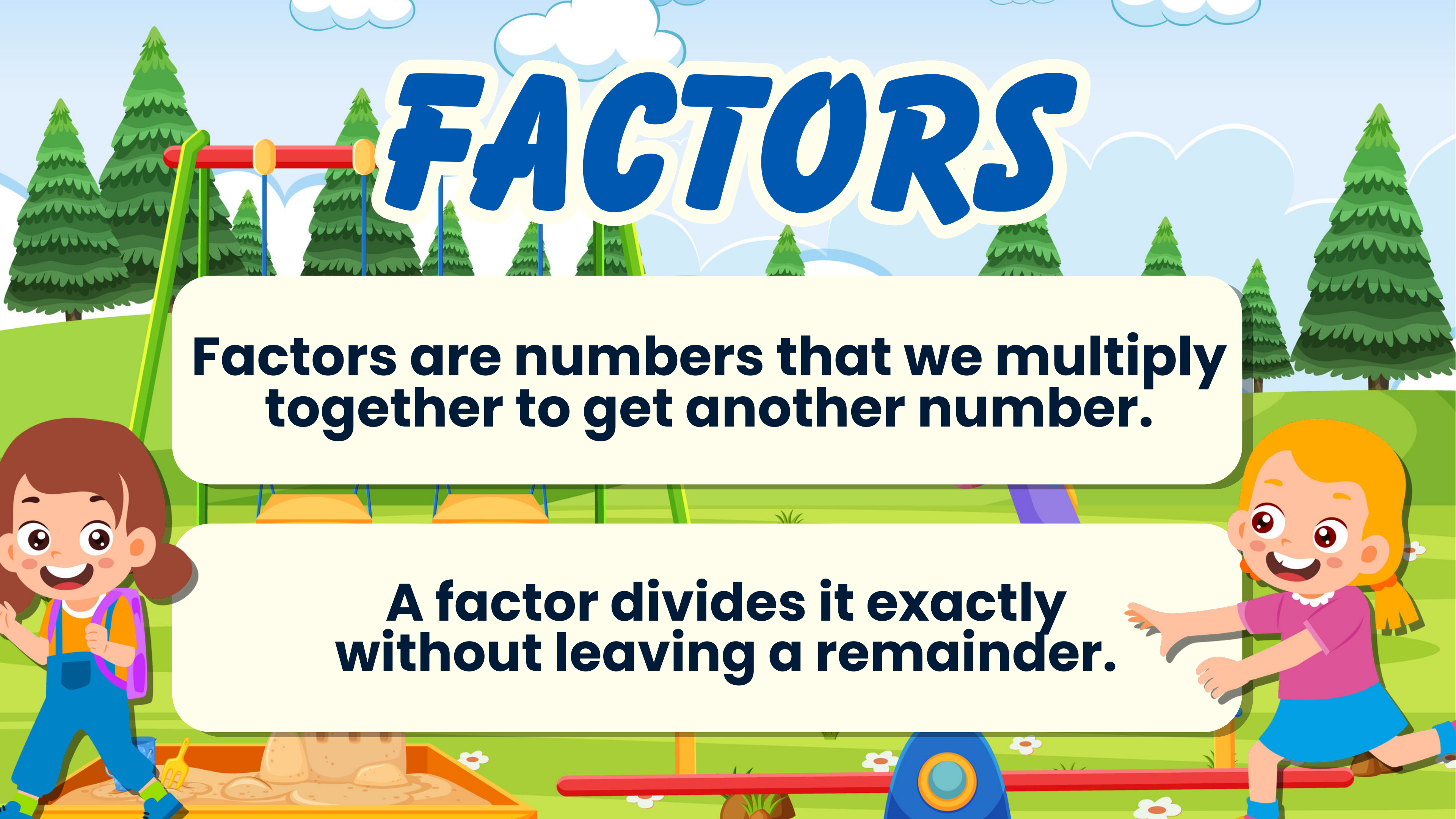
2

Find all the factors of a given number up to 100;

3

Differentiate between factors and multiples of numbers up to 100

FACTORS



Factors are numbers that we multiply together to get another number.

A factor divides it exactly without leaving a remainder.

FINDING FACTORS

Start with 1 and the number itself.

**Test all numbers in between by
checking divisibility.**



What are the factors of 12?

12

$$1 \times 12$$

$$2 \times 6$$

$$3 \times 4$$

The factors of 12 are 1, 2, 3, 4, 6 and 12.

What are the factors of 36?

36

1×36

3×12

2×18

4×9

The factors of 12 are 1, 2, 3, 4, 6 and 12.

What are the factors of 72?

72

$$1 \times 72$$

$$4 \times 18$$

$$2 \times 36$$

$$6 \times 12$$

$$3 \times 24$$

$$8 \times 9$$

The factors of 72 are 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, and 72.

Activity 1

List down all of the factors of the following:

1

60

2

45

3

81

4

90

Activity 1

List down all of the factors of the following:

1

60

*1, 2, 3, 4, 5, 6, 10, 12,
15, 20, 30, 60*

2

45

1, 3, 5, 9, 15, 45

3

81

1, 3, 9, 27, 81

4

90

*1, 2, 3, 5, 6, 9, 10, 15,
18, 30, 45, 90*

Activity 2

Which number has the most factors?

24

***1, 2, 3, 4, 6, 8, 12,
24***

36

***1, 2, 3, 4, 6, 9, 12,
18, 36***

50

1, 2, 5, 10, 25, 50

36 has the most factors.

Activity 2

Which number has the most factors?

40

***1, 2, 4, 5, 8, 10, 20,
40***

60

***1, 2, 3, 4, 5, 6, 10,
12, 15, 20, 30, 60***

81

1, 3, 9, 27, 81

60 has the most factors.

LET'S READ!

Aaron is organizing a soccer tournament with 24 players. He wants to divide them equally into teams of 5 to 15 players. What are the possible team sizes?



LET'S READ!

The possible team sizes are 6, 8, and 12 players, as these are the factors of 24 that fall between 5 and 15.



MULTIPLES

A multiple of a number is the result you get when you multiply that number by any whole number.

Skip counting helps you quickly list the multiples of that number.

What are the first ten multiples of 8 upto 100?

8

16

24

32

40

48

56

64

72

80

What are the multiples of 12 up to 100?

12

24

36

48

60

72

84

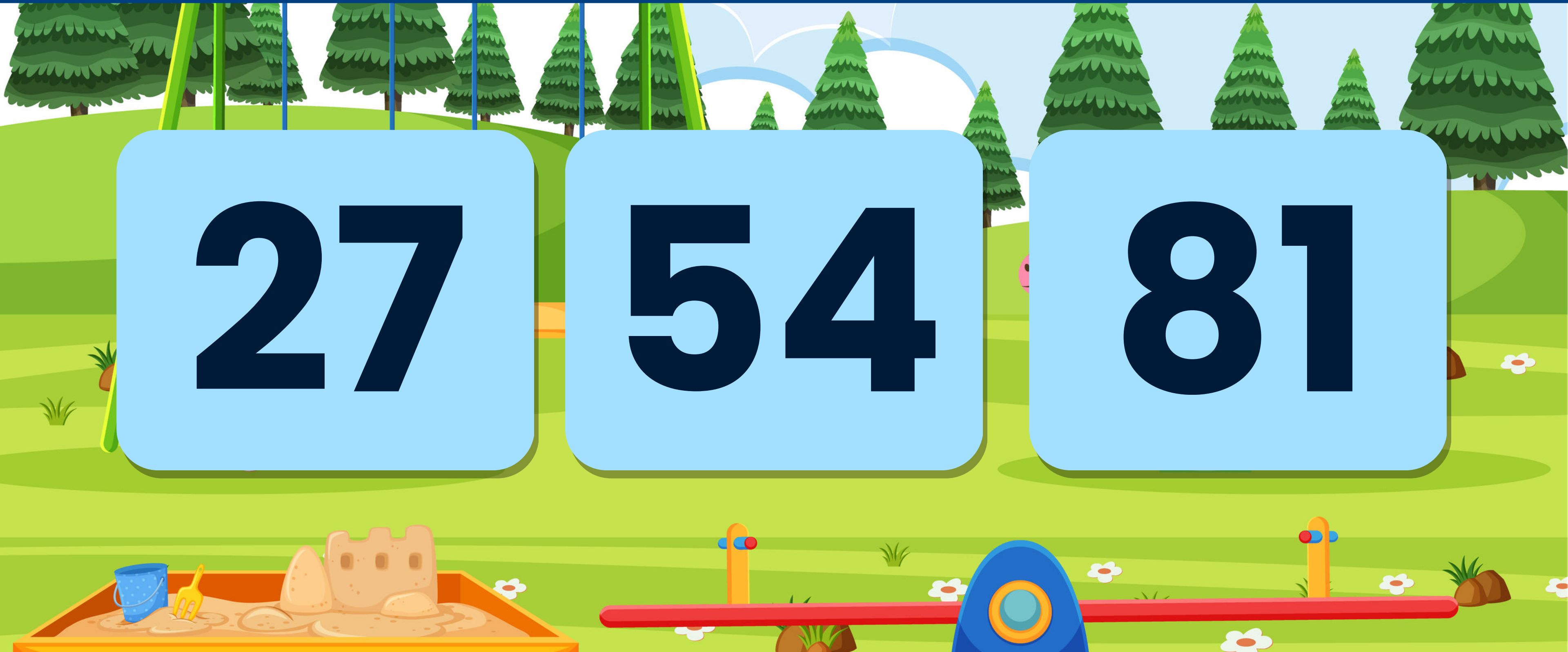
96

What are the multiples of 27 up to 100?

27

54

81



Activity 3

List down first five multiples of the following:

1

5

2

8

3

17

4

21

Activity 3

List down first five multiples of the following:

1

5

5, 10, 15, 20, 25

2

8

8, 16, 24, 32, 40

3

17

17, 34, 51, 68, 85

4

21

21, 42, 63, 84, 105

Activity 4

Select the multiple of the number from the given list.

1

6

12

22

74

2

14

54

84

92

Activity 4

Select the multiple of the number from the given list.

3

3

62

81

95

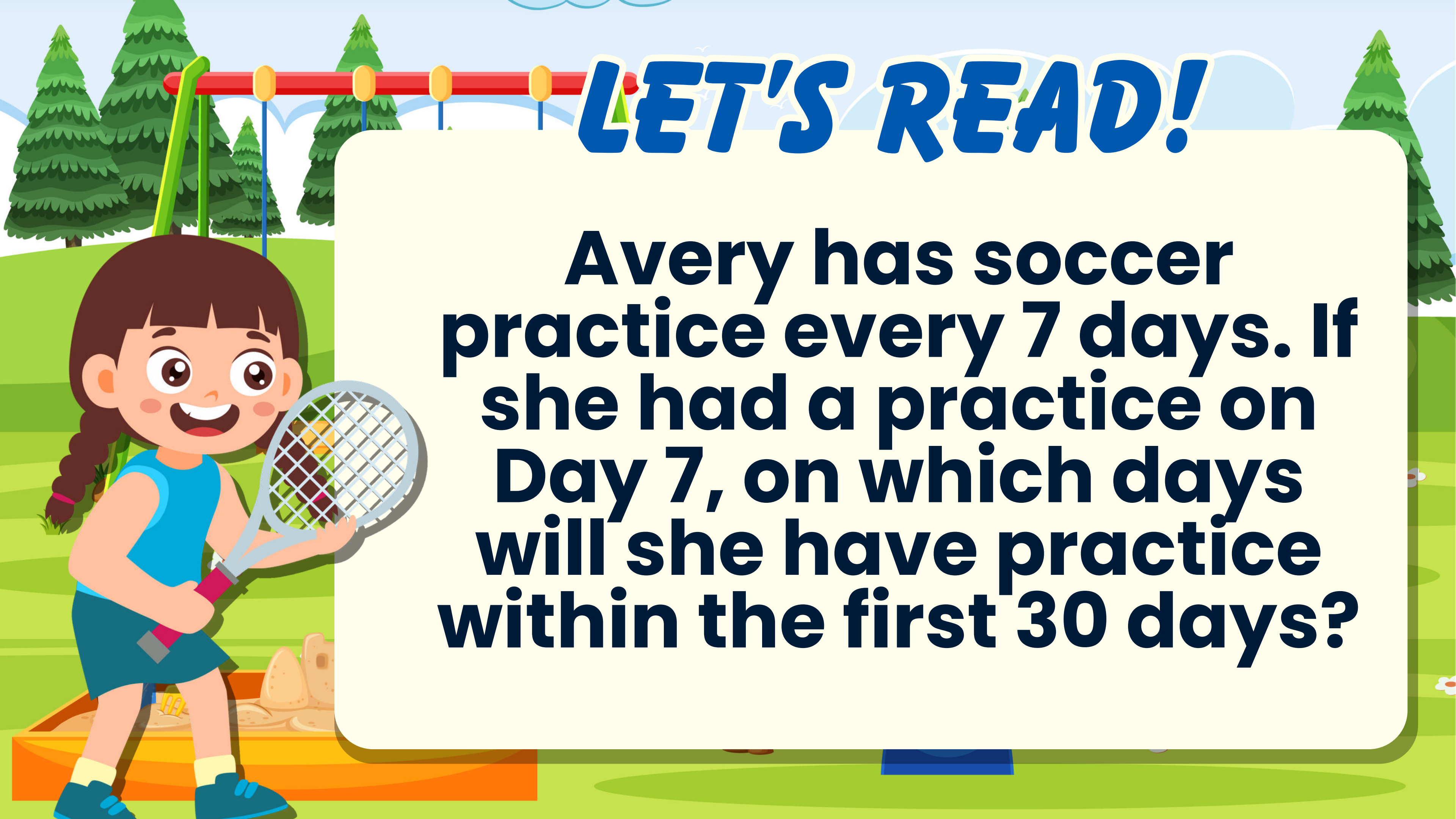
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4

82

96

54



LET'S READ!

Avery has soccer practice every 7 days. If she had a practice on Day 7, on which days will she have practice within the first 30 days?

LET'S READ!

Since Avery has practice every 7 days, her practice days are multiples of 7. Within the first 30 days, she will have practice on Day 7, 14, 21, and 28.



Activity 5

Given the number, give 3 factors and 3 multiples

1

12

2

20

3

18

4

30

Activity 5

Given the number, give 3 factors and 3 multiples

12

FACTORS

- 3
- 4
- 6

MULTIPLE

- 12
- 24
- 36

Activity 5

Given the number, give 3 factors and 3 multiples

20

FACTORS

- 2
- 4
- 10

MULTIPLE

- 20
- 60
- 80

Activity 5

Given the number, give 3 factors and 3 multiples

18

FACTORS

- 1
- 2
- 9

MULTIPLE

- 18
- 36
- 54

Activity 5

Given the number, give 3 factors and 3 multiples

30

FACTORS

- 2
- 5
- 6

MULTIPLE

- 30
- 60
- 90

REVIEW QUESTIONS

1

What is the difference between factors and multiples?

2

Can a number be both a multiple and a factor?

3

How can you use factors and multiples to solve real-life problems?