

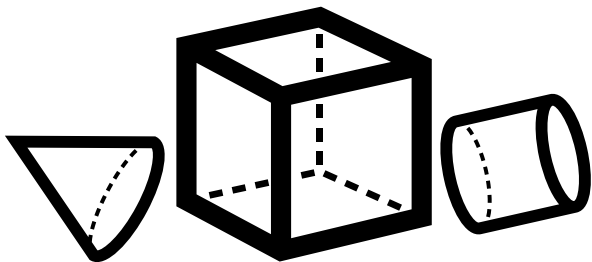
# English for Mathematics

## Lecture 2 Shape and Numbers

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*Sumba*

# Review

- Remember tenses in English?
  1. Time of occurrence. As the time occurrences change, the verb follow. They changed.
  2. subject – verb agreement. You have to recognize the subject. Is it singular/ plural to determine the verb form.



# Review

- The language focus we learned on the previous lecture is *present be*.
- Still remember what is the rule for *present be*?

Subject	Present be	Negative form	Rest of sentence
I	am	am not	happy
You	are	are not (aren't)	
She	is	is not (isn't)	
He			
It			
Rambu			
we	are	are not (aren't)	
They			
Rambu and Umbu			

# Brainstorm

- What do these objects have in common?
- They are shapes and numbers!  
We are surrounded by shapes and numbers in our life and today we will learn to describe them 😊

A



B

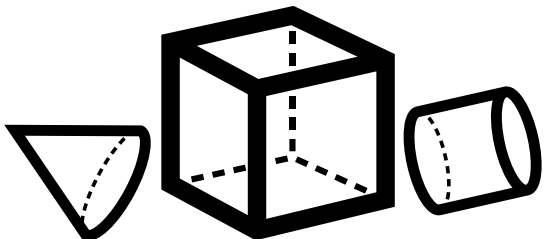


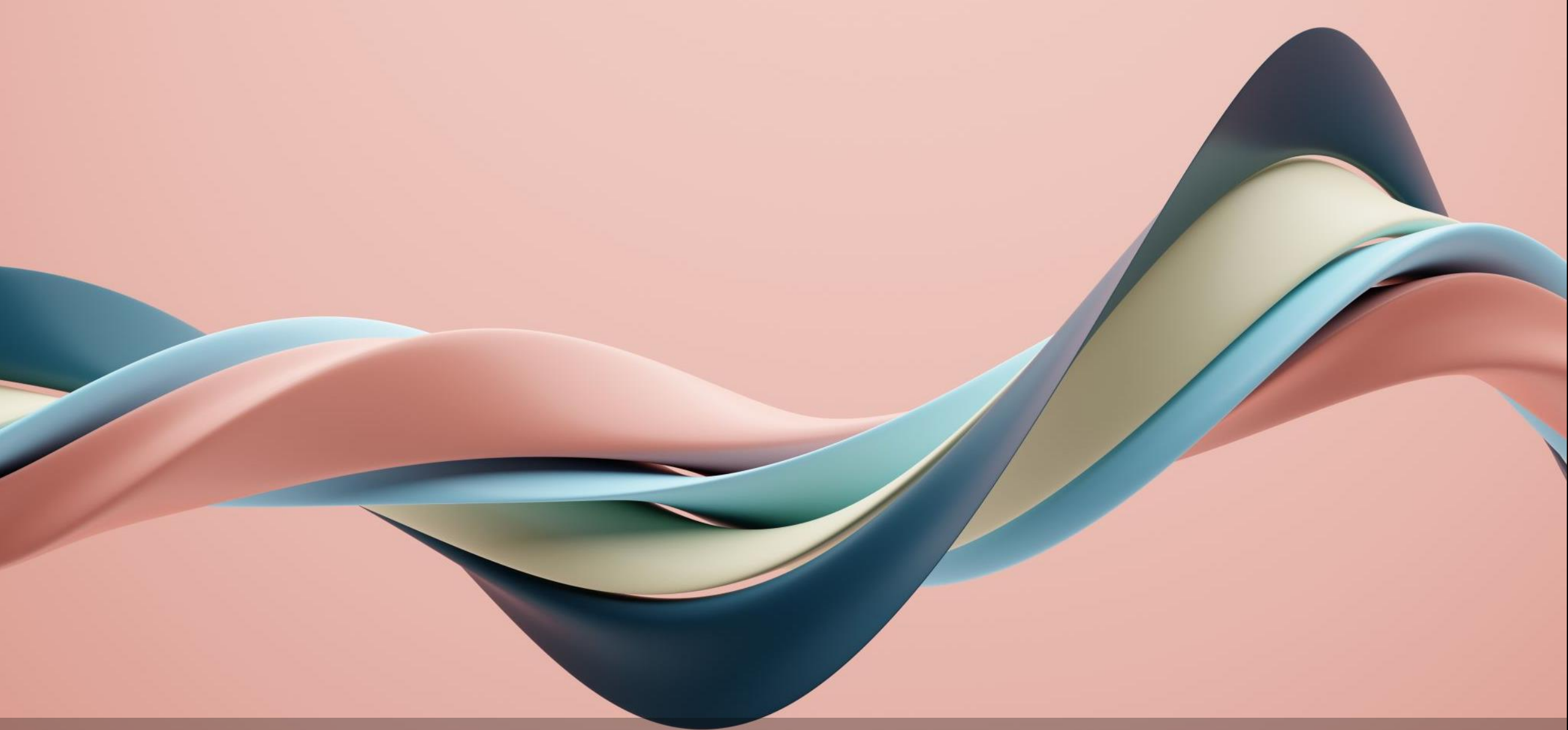
# Course Objectives & Expectations

- ✓ Describing shapes and numbers (adjectives, properties)
- ✓ Using **Simple Present** (facts, definitions)
- ✓ Using **Present Progressive** (ongoing actions)

Show a **real-life example**: classroom objects, road signs, or architecture.

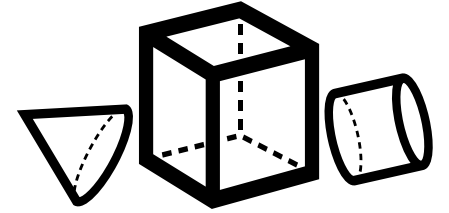
Students will be able to 1) **describe things** related to shape and numbers using **simple present tense**; 2) **describe simple math operations**; and 2) **describe ongoing actions** using **present progressive tense**.





*Simple Present Tense*

# Reading



- Let's read these two short paragraphs. Pay attention to the blue bolded words!

## Text 1

Engineers, architects and people of many other professions **use** lines and figures in their daily work. The study of lines and closed figures made by lines **is** called geometry. Geometry **is** the branch of mathematics which **investigates** the relations, properties, and measurement of solids, surfaces, lines and angles (Grechina & Mironova, 1974).

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## Text 2

Arithmetic **is** the fundamental branch of mathematics that **studies** numbers and their operations. In particular, it **deals** with numerical calculations using the arithmetic operations of addition, subtraction, multiplication, and division (Wikipedia, 2025).

- What do you notice from the bolded phrases? They are present be and base verb form.
- Why do you think the paragraphs use them? Before we discuss the answer, here are more examples. This time, with pictures 😊

# Describing Shapes

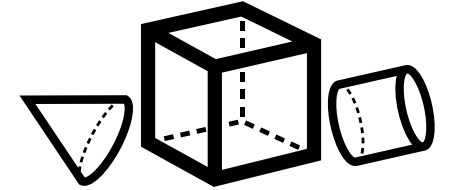
- What shape is this? How can we describe this shape? Pay attention to the **blue bolded** phrase.



- It **is** a green parallelogram.
- It **has** four corners, angles, and sides.
- To measure the area of a parallelogram, we **multiply** the base (b) by the height (h), using the formula  $A = bh$  or A **equals** b **times** h.

- Why do we use the same patterns when I describe the shape?
- What pattern is it?

# Use of Simple Present Tense



The *be* forms and the base verb forms indicate the use of Simple Present Tense. Use the simple present for:

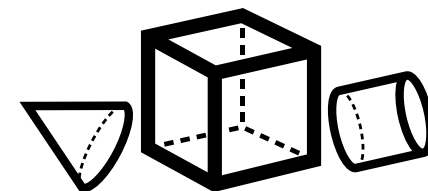
1. habits, daily routines, and schedules. E.g.

- Itha **updates** the course material every week.
- The students **do not go** to campus on Sunday.
- Mathematics department **does not offer** English course in odd semesters.

2. facts or things that are generally true.

- Parallelogram **is** one of geometric shapes. It **has** four corners, angles, and sides.
- Five times three **equals** fifteen.
- To measure the area of a parallelogram, we **multiply** the base (b) by the height (h), using the formula  $A = bh$  or A **equals** b **times** h.

# Verbs in Simple Present Tense (positives)



V1 (the base form of verb)

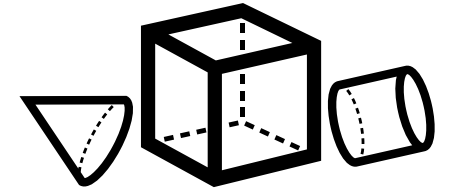
SUBJECT	VERB	REST OF SENTENCE
I/ You/ We/ They/ Rambu and Umbu	update	the course material every week.
He/ She/ It/ Rambu	updates	

V1+s/es

## **General Rule:**

- with a third-person singular subject (he, she, it), you add "-s" to most verbs,
- add "-es" to verbs ending in -s, -sh, -ch, -x, -z, or -o.

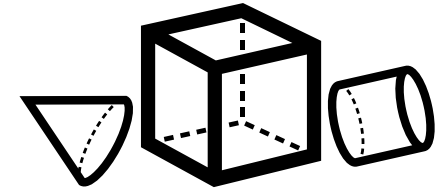
# Verbs in Simple Present Tense (negatives)



SUBJECT	DO/ DOES + NOT	BASE FORM	REST OF SENTENCE
I/ You/ We/ They/ Rambu and Umbu	do not	update	the course material every week.
He/ She/ It/ Rambu	does not	update	

The base form is used for all subjects

# Verbs in Simple Present Tense (questions)



DO/ DOES	SUBJECT	BASE FORM	REST OF SENTENCE
Do	I/ You/ We/ They/ Rambu and Umbu	update	the course material every week.
Does	he/ She/ It/ Rambu	update	

The base form is used for all subjects

# Exercise

Complete the sentences with the correct form of the verb in parentheses.

e.g. The sum of two even numbers \_\_\_ (be) always even.

The sum of two even numbers **is** always even.

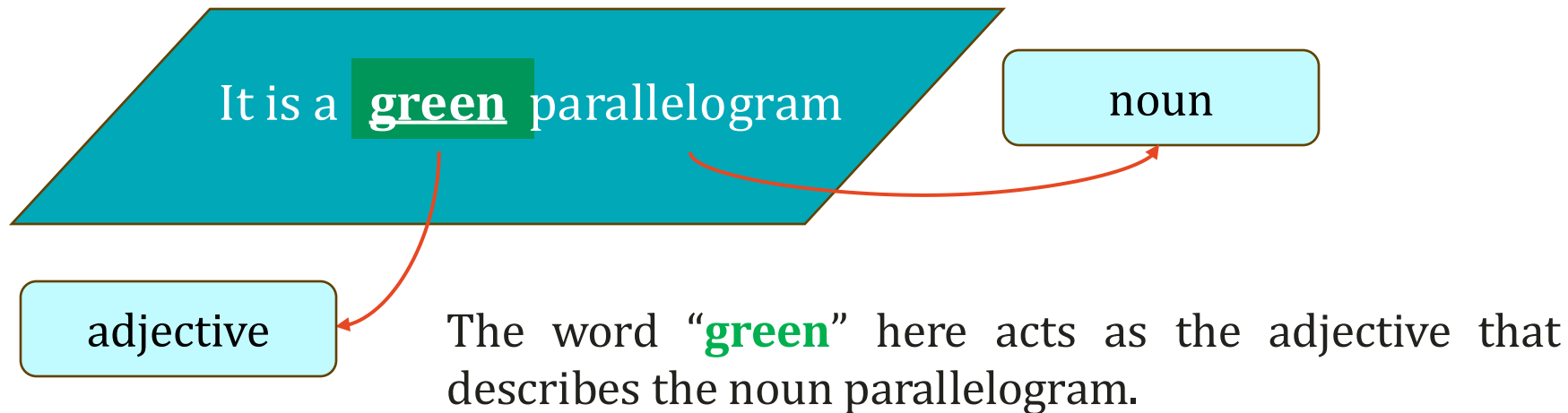
1. \_\_\_\_\_ the two parallel lines in rectangles intersect?
2. A fraction \_\_\_\_\_ (represent) a part of one whole thing.
3. The number zero \_\_\_ (not change) the value when added to another number.

# Discussion

1. **Do** the two parallel lines in rectangles intersect?
2. A fraction **represents** a part of one whole thing.
3. The number zero **does not change** the value when added to another number.

# Adjectives

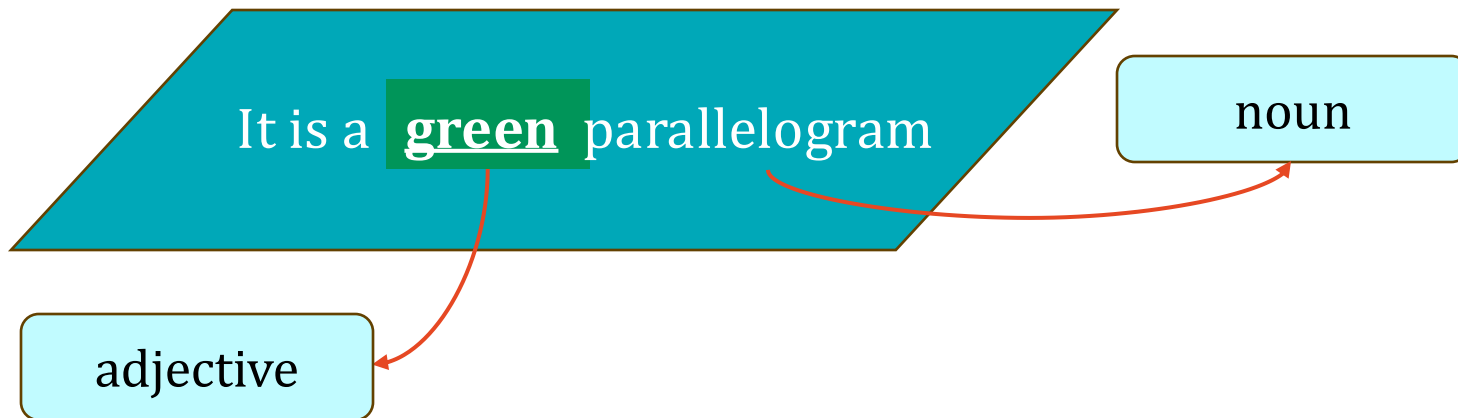
- When we describe something, we frequently use **adjectives**.
- Adjectives are words that describe nouns. In English, they usually **come before the noun** that they are describing (Hall & Barduhn, 2016).



- There are several categories of adjective:

# Types of Facts Adjectives

- Fact adjectives tell you a particular fact about the noun they are describing (Hall & Barduhn, 2016). There are many different categories of fact adjectives. Pay attention to the **bolded underlined** phrases.



- The word “**green**” here is categorized into a fact adjective.
- Facts adjectives include **size, shape, age, color, nationality, material.**

# Types of Opinion Adjectives



Image source:  
<https://shorturl.at/S6glx>

“pretty” is a general opinion adjective. It can describe lots of different things.

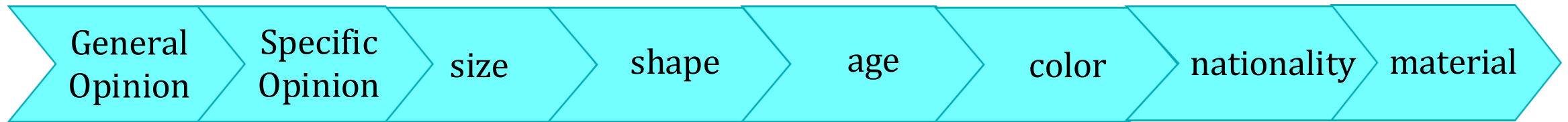
- The girl is wearing a **pretty** dress with polka dots pattern.
- The girl is **friendly**.

“friendly” is a specific opinion adjective. It usually only describes people or animals.

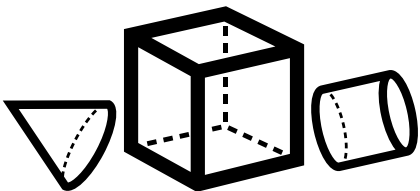
- Opinion adjectives describe what somebody thinks about something (Hall & Barduhn, 2016).
- It can be:
  1. General opinion adjectives can describe lots of different things.
  2. Specific opinion adjectives can only usually describe a certain type of thing.

# Adjective Order

When several adjectives are used together before a noun, they must go in a particular order.



The **iconic** hall is that **small** **round** **light grey** room in the corner.



# Exercise

Create 2 short sentences using the *simple present* and *adjectives* to describe:



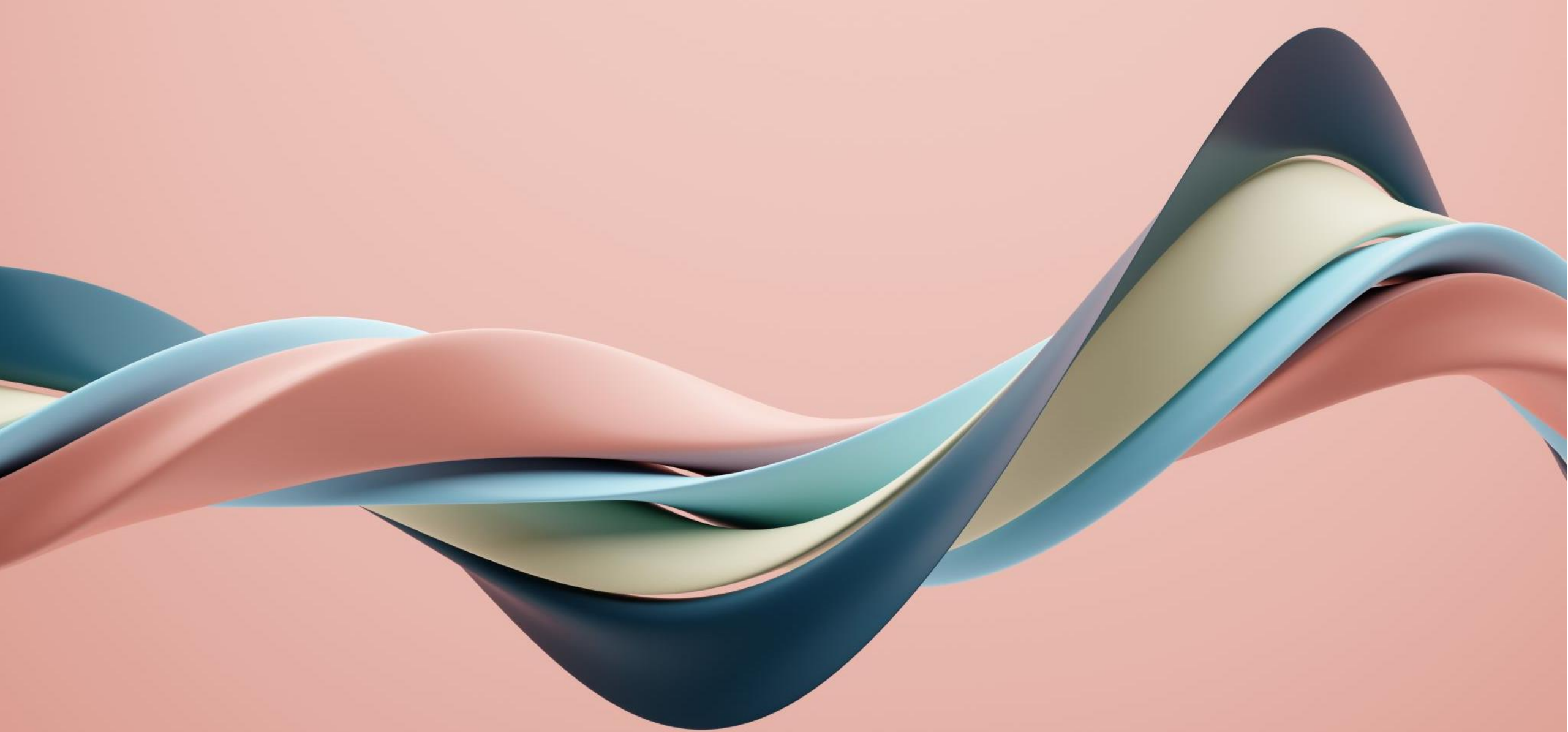
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# Discussion



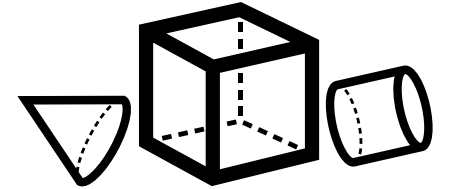
1. The beautiful house **has** two stories.
2. It **has** trapezoid red roofs and a rectangle door.
3. The owner **places** brown wooden fence in front of the house.
4. There **are** big trees around the house.

Source: <https://shorturl.at/xUynW>



***Present Progressive  
Tense***

# Shapes in Motions



What **is** the man **doing**?

He **is spinning** a wheel.

Source: <https://shorturl.at/TRHAR>

# Use of Present Progressive Tense

Use the present progressive for:

1. something happening/ not happening **right now** or talking about **current trends**. E.g.

- Most teenage girls in Indonesia **are following** the updates on Korean pop culture.

2. for actions that are **still happening** at the time of speaking

- I **am teaching** English for Mathematics.

3. for **temporary situation**

- She **is teaching** Math to the first graders.

# Positive & Negative Sentences

Present participle

## POSITIVE SENTENCES

SUBJECT	IS/ AM/ ARE	VERB + ING	REST OF SENTENCE
Umbu	is	assessing	students' grades.
The teachers	are	planning	the lesson.

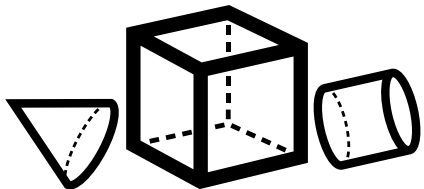
## NEGATIVE SENTENCES

SUBJECT	IS/ AM/ ARE + NOT	VERB + ING	REST OF SENTENCE
Umbu	is not (isn't)	assessing	students' grades.
The teachers	are not (aren't)	planning	the lesson.

# Questions

Present participle

IS/ AM/ ARE	SUBJECT	VERB + ING	REST OF SENTENCE
Is	Rambu	coming	to class?
Are	the teachers	having	a meeting?

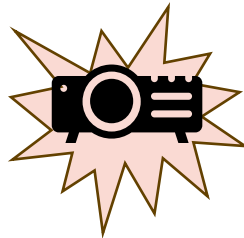


# Present Simple & Progressive Tense

- So, what is the major difference in the use of Present Simple & Present Progressive Tense?
- Notice the difference in these two situations.



Itha **uses** PowerPoint to teach.

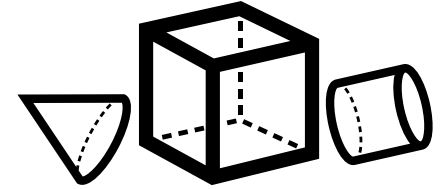


the projector is malfunctioned



She **is utilizing** the white board because the projector is malfunctioned.

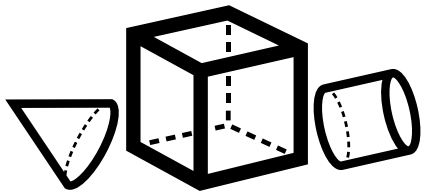
# Present Simple & Progressive Tense



	<b>SIMPLE PRESENT</b>	<b>PRESENT PROGRESSIVE</b>
Function	<ul style="list-style-type: none"><li>- Rutinitas</li><li>- Jadwal</li><li>- Fakta</li><li>- Hobi</li><li>- kebiasaan</li></ul>	<ul style="list-style-type: none"><li>- Sesuatu yang sedang terjadi/ tren</li><li>- Sesuatu yang saat ini masih sementara berlangsung</li><li>- Sesuatu yang direncanakan</li><li>- Sesuatu yang sifatnya sementara</li></ul>
Formula	<p>S + Verb1 (s/ es)</p> <p>S + does/ do + not + Verb1</p> <p>S + to be + noun/ adj</p>	<ul style="list-style-type: none"><li>- S + to be + V1+ing</li><li>- S + to be + not + V1 + ing</li></ul>

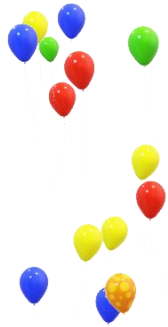
# Exercise

- Let's do some practices on making sentences using simple present and present progressive tenses.
- Use the words provided to make **correct sentences** in simple present or present progressive tenses.
- Remember each functions and rules to construct your sentences!



# Exercise

1. The balloons / float / in the air.



2. Five times five / equal / to twenty-five.

3. The teacher / not come / today.

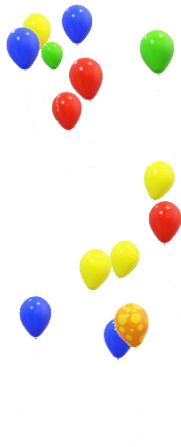
4. A calculator / help / students perform quick calculations.

5. The shark / swim / slowly.



# Discussion

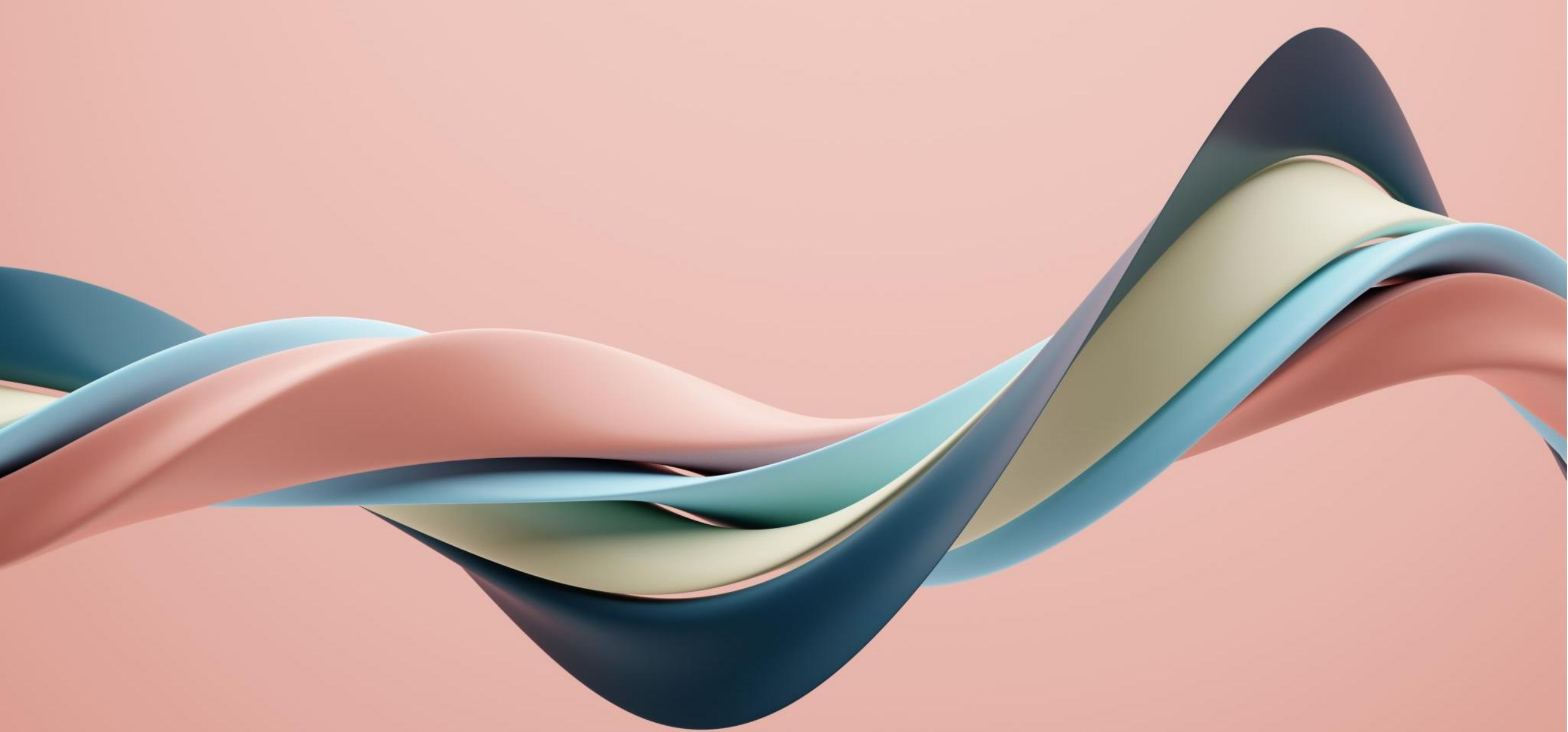
1. The balloons **are floating** in the air.



2. Five times five **equals** to twenty-five.
3. The teacher **is not coming** today.

4. A calculator **helps** students perform quick calculations.
5. The shark **is swimming** slowly.

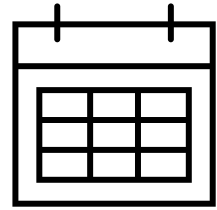




***Take Home Notes and Task***

# Simple Present Tense Vs. Present Progressive Tense

We use:



**Simple Present Tense** to talk about habits, daily routines, schedules, and facts.

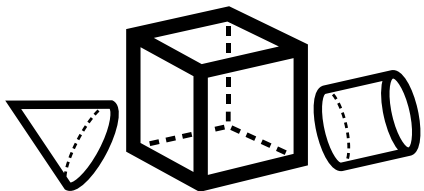


**Present Progressive Tense** to talk about something happening/ not happening right now, current trends, still happening at the time of speaking, and temporary situations.

# Task

## Identifying and Describing Geometric Shapes in Real Life

- **Work with a group of 4**
- **take 3-5 photos** of real-world objects that have clear geometric shapes (e.g., a basketball as a sphere, a door as a rectangle).
- Write **3-5 sentences** describing the shapes using **Simple Present Tense** (e.g., "The clock **is** a circle. It **has** a radius of 15 cm.")
- Submit a **short written report** or a **slide with images and descriptions**.

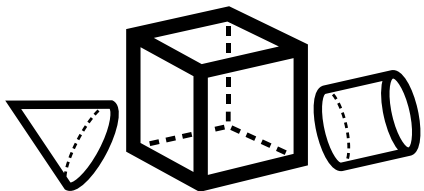


# References

Azar, B. S., & Hagen, S. A. (2009). *Understanding and Using. English Grammar* (4th ed.). Pearson Education.

Grechina, O., & Mironova, E. (1974). *English for Students of Mathematics*. Издательство «Высшая школа».

Hall, D. and Barduhn, S. (2016). *English for Everyone*. Edited by J. Siklos and A. Singer. New York: DK Publishing.



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Thank you and see you in Lecture 3!

