



University of Batna2

Faculty of Mathematics and Computer Science, Department of Mathematics

Module: English

Academic Year: 2022/2023 (Semester 1)

Teacher: Mr. NACER. D

Level L2 & L3 Statistics

Email: n.nacerdjamel@gmail.com

Lesson 1: NOUNS

There are two main types of nouns: **common nouns** and **proper nouns**.

1. Common nouns

Words for people, places and things are called **common nouns**.

- These common nouns are words for **things**:

Ruler	Hammer	bicycle	Truth	fridge	Ladder
Chair	Saw	truck	Courage	Computer	spade
book	Lawnmower	train	Loyalty	printer	sofa

- These common nouns are words for **animals**. Notice that special names for **young animals** are included.

Animal	Its young	Animal	Its young
Horse	Foal	Fox	Cub
Sheep	lamb	Kangaroo	Joey
Frog	tadpole	Chicken	Hen

- These common nouns are words for **places**.

school	post office	police station	Mosque	Temple
supermarket	airport	theater	Church	Farm
factory	gym	Stadium	Nursery	Synagogue

- These common nouns are words for **people** who do certain things.

sailor	writer	magician	farmer	Friend
technician	gardener	artist	athlete	Mate
lawyer	clerk	photographer	pilot	

2. Proper nouns

The names of **particular people, places and things** are **proper nouns**. They always begin with a **capital letter**.

- These **people's names** are proper nouns.

Mom	Grandpa	Dr. Lee	Rania	Nelson Mandela
Dad	Aunt Diana	Mr.		Professor Hafsi
Granny	Uncle David	Ms. Hall		

- The names of the **days of the week** and the **months of the year** are **proper nouns**.
 - **The names of special days and celebrations** are also proper nouns.

Eg: Saturday, Sunday, Monday...

January, February, December...

Mother's Day	Ramadan	Day Christmas	Independence Day
Thanksgiving	Valentine's Day	Labor day	New Year's Day
Halloween			Veterans' Day

- **The names of famous places, buildings and monuments** are proper nouns.

the Golden Gate	the Sphinx	the Sydney Opera House
Statue of Liberty	the Taj Mahal	the Great Wall of China
the Grand Canyon	Big Ben	the Empire State Building

- **The names of people who live in a particular country** are also proper nouns.

country	people	country	People
Afghanistan	Afghans	Korea	Koreans
the Philippines	Filipinos	Thailand	Thais
Vietnam	the Vietnamese	Switzerland	The Swiss
China	the Chinese	Germany	Germans

Exercises:

I/ Underline the **common nouns** and circle the **proper nouns** in these sentences.

1. I told Uncle John about my accident.
2. Kim and Stephanie wore masks on Halloween.
3. The lawnmower is broken.
4. We're going to the movies tomorrow.
5. The lion is playing with one of its cubs.
6. My sister's favorite soccer player is David Beckham.
7. I'm watching a videotape about the Sahara Desert.

8. The tourists visited Rome and saw the Colosseum.
9. Does this bus go to the stadium?
10. We're reading a story about a boy called Harry Potter.

II/ Read the following passage containing common nouns and proper nouns. Put a C under a common noun and a P under a proper noun.

Mr. Peters lives in Maine in a big house by the sea. He has three cats and a dog. He likes to travel to different countries. Last Christmas, he went to Paris and saw the Eiffel Tower. He enjoyed eating French food in nice restaurants.

III/ Underline all the nouns in the following sentences. Are they common or proper nouns?

Do you like cheese?

1. They stood next to the Niagara Falls.
2. May I borrow your umbrella?
3. The ambulance was driving very fast.
4. Carl did not agree with them.
5. She loves to visit Disneyland.
6. Would you like some more water?
7. The fog was very thick.
8. May I invite Tom to join us?
9. My car is very old.

Lesson 2: Singular & Plural

Nouns can be **singular** or **plural**.

1. Singular Nouns when you are talking about just one thing or person, use a singular noun. For example:

a tent	a park	an idea
a taxi	a lady	an exercise
a house	a doctor	an oven

2. Plural Nouns Use a plural noun when you are talking about two or more people, places or things.

- Just add **s** to make most nouns plural

Singular	Plural	singular	Plural
a computer a chair a train a player a teacher	computers chairs trains players teachers	a mountain a river an envelope an insect an oven	mountains rivers envelopes insects ovens

- Nouns that end in **s, ss, ch, sh or x**, are made plural by adding **es**.

Singular	Plural	Singular	Plural
bus glass dress branch	buses glasses dresses branches	sandwich witch brush flash	sandwiches witches brushes flashes

- Most nouns that end in **y** are made plural by **changing the y to i** and adding **es**.

Singular	plural	Singular	Plural
baby family story fairy puppy	babies families stories fairies puppies	housefly library city lily party	houseflies libraries cities lilies parties

- Nouns that have a **vowel before the y** are made plural by simply adding **s** at the end.

Singular	plural	Singular	Plural
key monkey donkey toy	keys monkeys donkeys toys	runway chimney trolley valley	runways chimneys trolleys valleys

- Many nouns that end in **f** are made plural by changing the **f to v** and adding **es**. But some nouns that end in **f** are made plural simply by adding **s**.

Singular	plural	Singular	Plural
half leaf shelf wolf	halves leaves shelves wolves	chief roof handkerchief cliff	chiefs roofs handkerchiefs cliffs

- Some nouns that **end in f** can be made plural in two ways. Most nouns that end in **fe** are made plural by changing the **f to v** and adding **s**.

Singular	plural	Singular	Plural
scarf hoof dwarf wharf	scarfs or scarves hoofs or hooves dwarfs or dwarves wharfs or wharves	knife wife life midwife	knives wives lives midwives

- Most nouns that end in **o** are made plural by adding **s**. But other nouns that end in **o** are made plural by adding **es**.

Singular	plural	Singular	Plural
----------	--------	----------	--------

video hippo zoo kangaroo	videos hippos zoos kangaroos	tomato potato hero	tomatoes potatoes heroes
-----------------------------------	------------------------------------	--------------------------	-----------------------------

- Some nouns **change** spelling from the singular form to the plural. The plural form of some nouns is **the same** as the singular form.

Singular	plural	Singular	Plural
woman person mouse tooth foot goose	women people mice teeth feet geese	sheep deer aircraft salmon	sheep (not sheeps) deer (not deers) aircraft (not aircrafts) salmon (not salmons)

- Some nouns are **always** plural. Some nouns are **usually** plural.

Always plural	Usually plural
Trousers/ glasses shorts /spectacles jeans/goggles pants /scissors	shoes /chopsticks sandals/ gloves slippers /clogs boots /socks

Exercises:

I/Read the following passage. Notice that the plural nouns are missing. Write the correct plural form of the singular nouns in parentheses. The first one has been done for you.

Three **ladies** (lady) in pink _____ (dress) took their _____ (baby) for a walk in the zoo. They saw four _____ (giraffe), three _____ (hippo), two _____ (kangaroo) and an elephant. They walked for so long that their _____ (foot) became sore, so they sat down on a bench for a rest near some _____ (monkey). The _____ (monkey) were playing with cardboard _____ (box) and throwing _____ (stick) at each other. After a while, the _____ (lady) looked at their _____ (watch) and decided it was time to go home.

II/ Complete the sentences with the nouns in brackets. Use the plural.

- How many _____ does your cat catch? (Mouse)
- They usually keep their winter clothes in _____(box)
- We saw some _____on our way to the beach. (Deer)
- She bought two _____in our online shop. (Scarf)
- Our uncle often tells us funny _____ (story)
- We often have _____for dinner on Fridays. (Fish)
- My sister likes ice cream with_____ (blueberry)
- Our dog has never had any _____ (louse)

9. The girls bought three _____ in the mall. (Dress)

10. How many _____ work in your office? (Person)

Lesson 3: The possessive form

Use the possessive form of a noun **to show ownership**.

To make the possessive form, put **an apostrophe** and an **s ('s)** after a **singular noun**.

- This is my bed and that is **Peter's** bed.
- We all like **Dad's** cooking.
- It is my job to collect **everybody's** plate after the meal.
- The flies are buzzing around the **horse's** tail.
- This is Susan and **Jenny's** room.
- This is **Tom's** hat and that is **Tom's father's** hat.

After plural nouns that don't end in s, use **an apostrophe** and an **s ('s)** to make the possessive form.

- The **children's** room is always messy.
- Some **people's** houses are bigger than ours.
- Rats' tails are longer than **mice's** tails.
- **Men's** voices are deeper than **women's** voices.

After **plural nouns** that end in s, just add an apostrophe **s'**.

- The **pupils'** desks are arranged in rows.
- The **boys'** bedroom is bigger than the **girls'** bedroom.
- The strong winds destroyed all the **farmers'** crops.
- Mice's tails are shorter than **rats'** tails.

Notes:

- ✓ How do you make the possessive form when two names linked by **and** are the owners? Put an 's after the second name only.

Katy and Mike's house is very big. (= the house that belongs to both Katy and Mike)

Joe and Sarah's dad works at the shoe factory. (= He is Joe's dad and he is also Sarah's dad.)

✓ Sometimes two possessive forms with 's appear together, one after the other:

This is John's brother's ball. (= The ball belongs to John's brother.)

Paul's teacher's house has a swimming pool. (= the house that belongs to Paul's teacher).

✓ When a name ends in s, you can make the possessive form in either of two ways: add an apostrophe and an s 's, or add just an apostrophe '. For example:

This is **James's** house. Or this is **James'** house.

Which is **Charles's** bike? Or which is **Charles'** bike?

Exercises:

I/Read the following passage. The possessive nouns are missing. Write the correct possessive form of the nouns in parentheses. The first one has been done for you.

Peter is spending the day at **Tom's** (Tom) house. Peter likes Tom's family. He especially likes _____ (Tom's mom) cooking! The boys play lots of games together. _____ (Tom) sister doesn't like _____ (Tom and Peter) games. She is playing by herself. Sometimes the _____ (boys) games become so noisy that Mom tells them to go and play in the garden. _____ (Tom) dog is in the garden, lying in the sunshine. Tom wants to play with the dog, but Peter is afraid of the _____ (dog) big teeth and sharp claws. At 7 o'clock, _____ (Peter) dad arrives in his car to take Peter home. Tom says he likes _____ (Peter's dad) new car. _____ (Peter) dad says that he'll take Tom for a ride in it sometime.

II/ Join the sentences below by using possessive forms. Study the boxes above

1. The student has a pen. The pen is on the table.

The student's pen is on the table.

2. The man has a car. The car is in the garage.

3. My friends had a party. The party was fun.

4. The women have kids. The kids are playing.

5. India has a population. The population is very large.

6. The children have a mother. The mother is over there.

7. My sisters have friends. The friends are interesting.

8. The teachers had a meeting. The meeting was last week.

Lesson 4: The present tense

Verbs have forms called **tenses** that tell you **when the action happens**.

If the action happens **regularly**, **sometimes** or **never**, use **the simple present tense**.

- We always **wash** our hands before meals.
- Joe sometimes **lends** me his bike.

- Dad **jogs** in the park every day.
- We often **go** to the movies on Saturday.
- Mr. Ross **takes** a train to work.

The simple present tense is also used to state **facts**.

- The sun **rises** every morning.
- Penguins **live** in the Antarctica.
- Dogs **love** playing in water.
- The earth **goes** around the sun.
- Australia **is** an island.

Use the simple present tense to tell the **events** of a **story** that is **happening now**.

- I **arrive** at school. I **see** another girl crying. I **ask** her why she is sad. She **says** she hasn't got any friends to play with. I **tell** her that she can **play** with me.

Use the simple present tense to talk about things that **will happen in the future**.

- My little sister **starts** school tomorrow.
- The new supermarket **opens** this Friday.
- Next week I **go** on holiday to Japan.
- We **fly** to London on Sunday.
- The train **leaves** in five minutes.
- My family **moves** to a new house next month.

Exercises:

I/ Complete the following sentences by writing am, is or are in the blank spaces.

- The _____ weather beautiful today.
- All the children _____ on the playground.
- Boys! You _____ always late for class. □ _____ You on the basketball team, too?
- Nobody in my class _____ interested in football.

- This computer more expensive than that one?
- Sally _____ my best friend.
- Mom and Dad _____downstairs watching television.
- Asma and Selma _____ in the computer room.
- The Eiffel Tower _____the tallest monument in Paris.

II/ Read the following passage. Fill in the blank spaces with: is, are, isn't or aren't.

- I like playing in our park because there _____some great things to play on. There_____ a big chute to slide on and a huge sandbox to play in. there _____also some swings. Dogs are not allowed in the park so there_____ no dogs to bother us. There _____also a lot of space for us to run around. It sometimes gets hot because there _____many trees to give shade, but there _____ a fountain where we can drink water. It's the best place in the town for children. There _____another place as good as the park.

Lesson 5: The past simple tense

Use the simple past tense to talk about **things that happened in the past**. The simple past tense is usually made by adding **ed** to the verb.

- I opened the door and **looked** inside.
- The plane **landed** ten minutes ago.
- My cousin **visited** us last summer □ We **walked** to school yesterday.
- She **laughed** when I told her the joke.

If a verb ends in **e**, just add **d** to make the simple past tense.

- Who **closed** all the windows?
- We **lived** in that house when I was a baby.
- She **smiled** when she saw me.
- We **raced** each other on our bikes.

If a verb ends in **y**, change the **y** to **i** before adding **ed**.

- I **carried** my mom's shopping bag.
- My brother **cried** when he fell off his bike.
- We **hurried** to the station to catch the train.
- Dad **tried** to help me with my homework.

With some **short verbs** that end in a **consonant**, you must **double the consonant** before adding **ed**.

- I climbed over the fence and **ripped** my shirt.
- The stranger **grabbed** my arm.
- The dog **wagged** its tail when it saw the biscuits.
- He **slammed** the door and walked off angrily.

Exercises:

I/ Complete the sentences with **the simple past tense** of the verbs in parentheses.

- The boys _____ (whisper) secrets to each other.
- Uncle Salim _____ (hurry) to catch his bus.
- We _____ (return) our books to the library.
- She _____ (kiss) the frog and it _____ (change) into a prince.
- Someone _____ (tap) me on the shoulder.
- The baby _____ (cry) when we took her toy away.
- Amine _____ (pin) the badge onto his jacket.
- Two doctors _____ (rush) into the room.
- This is the house that we _____ (live) in when I was younger.
- Granddad _____ (lower) himself into the chair.

II/ Write **Was** or **Were** in the blank spaces in the following passage.

- It _____ a beautiful summer's day and there _____ not a cloud in the sky. Mom, Dad and I _____ all in the garden. Dad _____ in the vegetable garden planting some seeds and Mom and I _____ busy with other jobs. The sun _____ hot and soon I _____ feeling very tired. Mom and Dad _____ not tired at all. They went on working for a long time. I _____ glad when it time to go inside and have a drink.

III/ Draw a circle around the correct **past tense verb** in each sentence below.

1. I (**losed** / **lost**) my watch in the park.
2. Ahmed (**hurt** / **hurted**) his knee when he (**falled** / **fell**).
3. I kicked the ball hard and it (**breaked** / **broke**) a window.
4. My new shoes (**cost** / **costed**) a lot of money.
5. I (**getted** / **got**) this book from the library.
6. We had a garage where we (**keeped** / **kept**) our car.
7. Ali (**shew** / **showed**) me the cut on his knee.

8. The glass (**fallen / fell**) off the table and (**breaked / broke**).
9. We (**selled / sold**) our old car and (**buyed / bought**) a new one.
10. The bell (**ringed / rang**) and we all (**goed / went**) into school.
11. The dog (**catched / caught**) the ball in its mouth.
12. The man (**kneeled / knelt**) down to talk to the little boy.
13. I (**meeted / met**) my friend in the park.
14. Our cat (**runned / ran**) onto the road in front of a car.
15. Soumia (**writed / wrote**) a letter to her best friend.

Lesson 6: Future tense

To show future action use the verbs shall and will with another verb that describes the action.

- You can use either **shall** or **will** with the pronouns **I** and **we**.
 - Use **will** with the pronouns **you, he, she, it** and **they**.
 - **Will** is also used with **singular nouns** like ‘my dad’ and with **plural nouns** like ‘all the boys in my class’.
-
- I shall do my homework after dinner.
 - I will miss you when you leave.
 - We shall take the dog for a walk later.
 - We will visit Grandma this weekend.
 - He will be home later.
 - She will help us cook the food for the party.
 - It will soon be dark outside.
 - I think it will be sunny tomorrow.
 - I expect they will give you a present.
 - Mom will be very pleased with you.
 - Your plant will die without water.
 - The school will soon need a lot of repairs.
 - Rania and I shall be glad when the exams are over.
 - Nacer and Karim will be late for school if they don’t hurry.

To make the negative form, use **will** and **shall** with **not**. The contraction for **will not** is **won't**.

- I will not help you unless you help me first.
- It won't be very sunny again until next summer.
- You won't like this food. It's horrible!
- We shall not go to the party without you.

To talk about **facts in the future** or **plans that will not change**, use **the simple present tense**.

- Tomorrow is Sunday.
- Summer vacation ends on Friday.
- The new library opens next week.
- We fly to Tamanrasset on Wednesday.

You can also talk about **plans for the future** and **other future happenings** by using **be going to** and another verb. Remember to:

- Use **am** and **was** with the pronoun **I**.
 - Use **is** and **was** with the pronouns **he, she and it**, and with **singular nouns** like 'my mom' and 'the teacher'.
 - Use **are** and **were** with the pronouns **we, you and they**, and with **plural nouns** like 'my friends' and 'Anis and Sonia'.
-
- I am going to visit my cousin tomorrow.
 - I am going to see the new Star Wars movie next week.
 - My friend Imen is going to move to Chicago next year.
 - Dad is going to buy me a skateboard.
 - Aunt Safia is going to have another baby soon.
 - It is going to be windy tomorrow.
 - I hope someone is going to fix the television soon. □ You are going to help me, aren't you?
 - My friends are going to teach me how to play chess.
 - Mom and Dad are going to buy a new computer.
 - Your books are going to fall off the shelf if you're not careful.

- Are you going to read your book now?

Exercises:

I/Decide whether **shall** and **will** are used correctly in each sentence. Put a checkmark ✓ for a correct use and an **X** for an incorrect use.

1. My dad **will** be home later.
2. I **will** never forget my days at school.
3. Mimi and Safa **shall** come with us.
4. The weather report says that it **shall** be sunny again tomorrow.
5. We **will** miss my cousins when they leave.
6. Rania and I **shall** feel happier when the exams are over.
7. It **will** be late when we arrive in London.
8. I **shall** stay awake all night and watch for Santa Claus.
9. My grandparents **shall** enjoy coming to our house for Christmas.
10. The winter holidays **shall** give us all a good rest.

II/ Read the pairs of subjects and verbs below. Then write sentences about future events using the correct form of be going to. For example, for the first sentence you could write:

My friend Sarah is going to sleep at my house tonight.

- My friend Sara(sleep)_____
- We (ride) _____ □ The dog (catch) _____
- Uncle Khaled (come) _____
- It (rain) _____
- We (eat)_____
- Jamal and I (have)_____
- The teachers (read)_____
- My brother (buy)_____

Lesson 7: Auxiliary verbs(part1)

Auxiliary, or **helping verbs**, are used before **infinitives** to add a different meaning. For example, you use auxiliary verbs to say:

- That someone is able to do something, ▪ that someone is allowed to do something, or ▪ That someone has to do something.

The helping verbs are: **can, could, would, should, ought to, will, shall, may, might** and **must**.

1. Can and Could

Use **can** and **could** to say that someone **is able to do something**.

- She can draw really good pictures.
- Ahmed can run faster than Oussama.
- Can you ride a bike?
- Can you help me with my homework?
- She could already read before she started school.
- Our teacher said we could go home early.
- I ran as fast as I could.
- Sarah could not come to the party because she was ill.

You may also use **can** and **could** to say that someone **is allowed to do something**.

- My mom says you can come to our house for dinner. □ Dad says I can't walk to school on my own.
- You can't go in there without a ticket.
- Mom said I could have ice cream after my dinner.
- The big sign on the gate said PRIVATE, so we couldn't go in

Can and **could** are also used for **asking for information** or **help**, for **offering** something, and for **suggesting** something.

- Can you tell me if this train goes to Oran?
- Could you show me where the accident happened?
- Could you open that window, please?
- You can borrow my pen, if you like.
- Your sister could come with us, if she wanted to.
- I could lend you my football.
- We can go to the library instead.
- You could ask your dad to help us.
- Samir can borrow his brother's skates.

2. Will and Would

Use **will** and **would** when you are **asking someone to do something**.

- Will you please stop making that noise?
- Would you pass me that book, please?
- Please, will you close the door?

You can also use **will** and **would** to **offer** something or to **suggest** something.

- Will I hold this end of the rope?
- Will I carry the bag for you?
- Would you like another drink?
- Which cake would you like?

3. Shall and Should

You can use **shall** and **should** to **ask for advice**, **offer** something and **suggest** something.

- Should I bring waterproof clothes? □ Shall I go by car, or will it be better to □ Should I phone the police?
- Shall I help you with that heavy bag?
- Shall we go home now?

- You should try that new French restaurant.

Exercises:

I/ Circle the correct auxiliary modal verb in each sentence.

1. My dog and I (would, will) go for walks when she was younger.
2. I (will, would) buy new shoes if I had enough money.
3. I am feeling tired. I think I (would, will) go to sleep now.
4. I (will, would) like more milk when you get a chance.
5. I don't think we (will, would) ever win the game.
6. If you get in trouble, I (won't, wouldn't) help you.
7. When we were in sixth grade, we (will, would) usually play kick ball at recess.
8. (Will, would) you like steak or chicken?
9. If I was a famous tennis player, I (won't, wouldn't) like to lose.
10. I am hungry. I (will, would) get something to eat.

II/ Fill in the blanks below to complete the sentences. Use Can Could.

1. I _____ go to the party last night because I was sick.
2. A: _____ Noel cook Italian food? B: Yes, he _____.
3. My sister _____ swim last year, but now she _____.
4. They _____ go shopping yesterday because the store was closed.
5. A: _____ you read when you were four years old? B: Yes, I _____.
6. Maria _____ ride a bicycle. She rides it to school every day.
7. I'm very tired, so I _____ go out to the park to play.
8. A: _____ you see the moon last night? B: No, I _____.
9. When _____ I talk to you about the company report?
10. Most dinosaurs walked on land, but some _____ fly or even swim.
11. Excuse me, I _____ hear you right now. The music is too loud.
12. I _____ drive a truck when I was only sixteen years old.
13. Ayoub hit the tree because he _____ stop his car.
14. How many burgers _____ you eat at one time?
15. I _____ read without my reading glasses. Where are they?

III/ Circle the correct auxiliary modal verb in each sentence.

1. Mom thinks you (should, shall) clean your room.
2. Trains (shall, should) go faster.
3. This weekend (should, shall) be the best weekend ever!
4. I (should, shall) be a writer when I get older.
5. Police (shan't, shouldn't) be allowed to drive so fast.
6. Our team (should, shall) have tried harder.
7. After you are finished washing my car, you (shall, should) get me something to eat.
8. (Shall, Should) we be ready by ten?
9. If we want to make money, we (should, shall) get a job.

10. The world (should, shall) be peaceful.

Lesson 8: Auxiliary verbs(part2)

4. Ought to

You use **ought to** to make **strong suggestions** and talk about someone's **duty**.

- You look tired. You ought to go to bed early tonight.
- I ought to get more physical exercise.
- We ought to lock the door when we leave home.
- You ought to turn off the computer when you're not using it.
- You ought to know how to spell your own name.
- The teacher ought to make his classes more interesting.

5. Must

Use **must** to talk about **things** that you **have to do**.

- I must mail this letter today.
- You must speak louder. I can't hear you.
- Children must not play with matches.
- Go to bed now. Oh, must I?
- Why must I do my homework tonight?

6. May and Might

Use **may** to ask if you are **allowed to do something** and to tell someone that they are **allowed to do something**.

- "May I go out to play now?" "Yes, you may."
- May I borrow your pen?
- Please may I see your ticket?
- Jamel may leave now, but Soumia may not.

- May Maria come with us to the movies?

Use **may** and **might** to talk about things that **are possible** or **likely**.

- Take an umbrella. It might rain.
- I may not have time to go swimming tonight.
- We might go to the party later.
- If you're not careful, you may hurt yourself.
- "Are you going to the concert?" "I don't know. I might or I might not." **Exercises:**

I/ Complete the sentences using **must** or **mustn't** with a verb from the list below. The first one has been done for you.

Go. Eat. Stop. Believe. Tell. Steal. Be. Read. Park. Listen.

1. You **must** at the curb and look before you cross the street.
2. Children _____ to the teacher if they want to learn.
3. You _____ everything your friends tell you.
4. You _____ the question carefully before you write the answer.
5. If you want to be healthy, you _____ a lot of fruits and vegetables.
6. You _____ out on your own at night.
7. We _____ because it is wrong.
8. Drivers _____ their cars in the middle of the road.
9. If you want people to be nice to you, you _____ nasty to them.
10. You _____ always _____ the truth.

II/ Circle the correct auxiliary modal verb in each sentence.

- 1) When I grow up, I (may, might) become an engineer.

- 2) There is a small chance that we (may, might) go to the beach this weekend.
- 3) There is a good chance that we (might, may) have to postpone the meeting.
- 4) Billy and I (may, might) cook dinner tonight.
- 5) The airplane (might, may) crash.
- 6) You never know, I (may, might) become president one day.
- 7) (May, Might) I have a piece of bread please?
- 8) It (might, may) snow tonight, but I doubt it.
- 9) If Yasmine studied harder, she (might, may) have gotten a better grade on the test.
- 10) I (might, May) not be coming to your party tonight. I told my mother that I would stay home and make cookies with her already. I'm sorry

Arithmetic

Integers

0	zero	10	ten	20	twenty
1	one	11	eleven	30	thirty
2	two	12	twelve	40	forty
3	three	13	thirteen	50	fifty
4	four	14	fourteen	60	sixty
5	five	15	fifteen	70	seventy
6	six	16	sixteen	80	eighty
7	seven	17	seventeen	90	ninety
8	eight	18	eighteen	100	one hundred
9	nine	19	nineteen	1000	one thousand

-245	minus two hundred and forty-five
22 731	twenty-two thousand seven hundred and thirty-one
1 000 000	one million
56 000 000	fifty-six million
1 000 000 000	one billion [US usage, now universal]
7 000 000 000	seven billion [US usage, now universal]
1 000 000 000 000	one trillion [US usage, now universal]
3 000 000 000 000	three trillion [US usage, now universal]

Fractions [= Rational Numbers]

$\frac{1}{2}$	one half	$\frac{3}{8}$	three eighths
$\frac{1}{3}$	one third	$\frac{26}{9}$	twenty-six ninths
$\frac{1}{4}$	one quarter [= one fourth]	$-\frac{5}{34}$	minus five thirty-fourths
$\frac{1}{5}$	one fifth	$2\frac{3}{7}$	two and three sevenths
$-\frac{1}{17}$	minus one seventeenth		

Real Numbers

-0.067	minus nought point zero six seven
81.59	eighty-one point five nine
$-2.3 \cdot 10^6$	minus two point three times ten to the six
[= -2 300 000	minus two million three hundred thousand]
$4 \cdot 10^{-3}$	four times ten to the minus three
[= 0.004 = 4/1000	four thousandths]
π [= 3.14159...]	pi [pronounced as 'pie']
e [= 2.71828...]	e [base of the natural logarithm]

Complex Numbers

	i	i	
	$3 + 4i$	three plus four i	
	$1 - 2i$	one minus two i	
$\overline{1 - 2i} = 1 + 2i$		the complex conjugate of one minus two i equals one plus two i	

The real part and the imaginary part of $3 + 4i$ are equal, respectively, to 3 and 4.

Basic arithmetic operations

Addition:	$3 + 5 = 8$	three plus five equals [= is equal to] eight
Subtraction:	$3 - 5 = -2$	three minus five equals [= ...] minus two
Multiplication:	$3 \cdot 5 = 15$	three times five equals [= ...] fifteen
Division:	$3/5 = 0.6$	three divided by five equals [= ...] zero point six

$(2 - 3) \cdot 6 + 1 = -5$	two minus three in brackets times six plus one equals minus five
$\frac{1-3}{2+4} = -1/3$	one minus three over two plus four equals minus one third
$4! [= 1 \cdot 2 \cdot 3 \cdot 4]$	four factorial

Exponentiation, Roots

5^2	[= $5 \cdot 5 = 25$]	five squared
5^3	[= $5 \cdot 5 \cdot 5 = 125$]	five cubed
5^4	[= $5 \cdot 5 \cdot 5 \cdot 5 = 625$]	five to the (power of) four
5^{-1}	[= $1/5 = 0.2$]	five to the minus one
5^{-2}	[= $1/5^2 = 0.04$]	five to the minus two
$\sqrt{3}$	[= $1.73205\dots$]	the square root of three
$\sqrt[3]{64}$	[= 4]	the cube root of sixty four
$\sqrt[5]{32}$	[= 2]	the fifth root of thirty two

In the complex domain the notation $\sqrt[n]{a}$ is ambiguous, since any non-zero complex number has n different n -th roots. For example, $\sqrt[4]{-4}$ has four possible values: $\pm 1 \pm i$ (with all possible combinations of signs).

$(1 + 2)^{2+2}$	one plus two, all to the power of two plus two
$e^{\pi i} = -1$	e to the (power of) pi i equals minus one

Divisibility

The multiples of a positive integer a are the numbers $a, 2a, 3a, 4a, \dots$. If b is a multiple of a , we also say that a divides b , or that a is a divisor of b (notation: $a \mid b$). This is equivalent to $\frac{b}{a}$ being an integer.

Statistics Glossary

Symbols:

α	alpha	significance level; probability of a type I error
β	beta	probability of a type II error
μ	mu	population mean
ν	nu	degrees of freedom
π	pi	ratio of a circle's circumference to its diameter, ≈ 3.1416
ρ	rho	Pearson product-moment population correlation coefficient
σ	sigma	population standard deviation; standard error
Σ	sigma	summation
df	degrees of freedom	
E(X)	expected value of X	
H_0	null hypothesis	
H_A	alternative hypothesis	
i	interval size	
n	number of observations in a sample	
PR	percentile rank	
p	probability of a success	
p(X)	probability of event X	
Q	semi-interquartile range	
q	probability of a failure	
r	Pearson product-moment sample correlation coefficient	
r^2	proportion of variance in y accounted for by x	
S	sample standard deviation (S^2 is the sample variance)	
SS	sum of squares	
X	sample score	
\bar{X}	sample mean	
Z'	Fisher's transformation of r	
z	standard score	

Definitions:

Analysis of variance (ANOVA)

A procedure for determining how much of the total variability among scores to attribute to a range of sources of variation and for testing hypotheses concerning some of the sources

Completely randomized design (CRD)

A study in which the assignment of participants to treatment levels is completely random; each participant is in only one treatment condition

Confidence interval

A range of values computed from data so that a specified percentage (often 95%) of all possible random samples from the same population will give intervals that contain the true population value

Correlation coefficient

A number that represents the degree of association or *strength of relationship* between two variables

Critical region

The *region for rejecting* the null hypothesis; determined by H_A and α

Cumulative frequency distribution

A distribution that shows the number, proportion, or percentage of scores that occur below the real upper limit of each interval (*including all intervals below*)

Dependent samples

The selection of participants in one sample is *affected* by the selection of participants in the other sample; keywords “matched” or “repeated”

Matched sample: matching each participant in the experimental condition with a participant in the control condition on some variable that is correlated with the dependent variable

Repeated measures: observing the same participants under both the experimental and control conditions

Histogram

Similar to a bar graph, but used for quantitative variables; constructed by placing vertical bars over the real limits of each interval, with the height of each bar corresponding to the frequency of the interval

Independent samples

The selection of participants in one sample is *not affected* by the selection of participants in the other sample; keyword “random”

Level of significance

The probability that is the largest risk a researcher is willing to take of rejecting a true null hypothesis

Mean

Average; sum of the scores divided by the number of scores

Median

The *middle value* that divides the data into two equal groups

Mode

The score or qualitative category that occurs with *greatest frequency*

Normal distribution

A probability distribution that is *unimodal and symmetrical*; the mean, median, and mode are all the same value (the highest point on the curve)

Outliers

Scores that *differ so markedly* from the main body of data that their accuracy is questioned

***p*-value**

The probability of obtaining a value of the test statistic equal to or more extreme than that observed, given that the null hypothesis is true

Parameter

Descriptive measure for a *population*; usually represented by Greek letters

Percentile (point)

A point on the measurement scale below which a specified percentage of scores falls

Percentile rank

The percentage of the scores of the distribution that fall below that score

Population

The collection of *all* people, objects, or events having one or more specified characteristics

Power

The probability of correctly rejecting the null hypothesis; $1 - \beta$

Random assignment

The method of placing participants into the treatment groups in which each participant has an equal chance of being placed in any of the groups

Random sampling

The method of drawing samples from a population such that every possible sample of a particular size has an *equal chance of being selected*

Relative frequency distribution

A distribution that shows the *proportion or percent frequency* for each interval

Residual (prediction error)

The difference between a person's actual score and predicted score

Sample

A *subset* of a population

Sampling distribution

A probability distribution in which the random variable is a statistic based on the results of more than one trial

Semi-interquartile range

Half the distance between the first quartile point and the third quartile point

Standard deviation

Measure of the spread of data that is based on every score in a distribution

Standard score

A number that expresses the value of a score relative to the mean and standard deviation of its distribution

Skewed distributions

Distributions that are *asymmetrical*; there are two types

Negatively skewed: longer tail extends to the *left*

Positively skewed: longer tail extends to the *right*

Statistic

Descriptive measure for a *sample*; usually represented by English letters

Type I error

Rejecting a true null hypothesis

Type II error

Retaining a false null hypothesis