

# Englist.me



## Vocabulary Builder Reference from...

*Jeff Dekofsky: Is math discovered or invented? | TED Talk*

[https://www.ted.com/talks/jeff\\_dekofsky\\_is\\_math\\_discovered\\_or\\_invented](https://www.ted.com/talks/jeff_dekofsky_is_math_discovered_or_invented)

### All Words

#### IMPORTANT

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## Session 1: Word List

### mathematics

*n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement

*synonym*: arithmetic, calculation, calculus

(1) a good grounding in **mathematics**, (2) **mathematics** competition

He has a flair for **mathematics**.

### ancient

*adj.* relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old

*synonym*: archaic, age-old, obsolete

(1) pre-Christian **ancient**, (2) **ancient** stories

They have been living near water since **ancient** times.

### humankind

*n.* the whole of the living human inhabitants of the earth

*synonym*: humanity, human race, society

(1) **humankind** as a species, (2) history of **humankind**

On the geological time scale, **humankind** has existed for a brief moment.

### debate

*n.* a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest,

in which participants offer opinions and differing perspectives

*synonym* : argument, discussion, dispute

(1) **debate** topic, (2) **debate** competition

The **debate** over climate change continues to be a hot topic in politics.

## discovery

*n.* the act or process of finding information, a place, or an object, or learning about something that was previously not known

*synonym* : finding, uncovering, detection

(1) a scientific **discovery**, (2) the great **discovery** of the century

Her research team made an important **discovery**.

## invention

*n.* the creation of a new device or process resulting from study and experimentation; the act of inventing

*synonym* : creation, design, innovation

(1) the **invention** of new techniques, (2) common **invention**

Necessity is the mother of **invention**.

## concept

*n.* an idea or principle associated with something abstract

*synonym* : idea, notion, vision

(1) learn new **concepts**, (2) **concept** car

One such rapidly growing **concept** is quantum cryptography.

## universe

*n.* everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy

*synonym* : cosmos, macrocosm

(1) theory of the **universe**, (2) expansion of the **universe**

The **universe** is about 13.8 billion years old.

## native

*adj.* connecting with or describing someone's birth country or place of birth, or someone born in a specific country or place

*synonym* : endemic, domestic, aboriginal

(1) **native** to Africa, (2) **native** language  
The vegetation here is almost wholly **native**.

## **polygon**

*n.* a closed plane figure bounded by three or more straight sides that meet at the same number of angles (vertices)  
*synonym* : shape, figure, form

(1) regular **polygon**, (2) closed **polygon**

The garden had a complex **polygon** shape with many angles and corners.

## **equation**

*n.* the act of regarding as equal; (mathematics) a statement that expresses the equality of two expressions by connecting them with the equals sign

(1) the **equation** of poverty with ignorance, (2) a chemical **equation**

In this class, you will learn how to solve quadratic **equations**.

## **mere**

*adj.* used to emphasize how insignificant or minor someone or something is

*synonym* : bare, minor, sheer

(1) **mere** acquaintance, (2) **mere** incident

He lost the election by **mere** votes.

## **ethereal**

*adj.* delicate, light, and airy; extremely refined or subtle; heavenly or spiritual

*synonym* : airy, delicate, celestial

(1) **ethereal** beauty, (2) **ethereal** light

The **ethereal** music created a dreamlike atmosphere in the concert hall.

## **representation**

*n.* the act of speaking, acting, or being present on behalf of someone officially; a statement of facts and reasons made in appealing or protesting

*synonym* : delegacy, manifestation, expression

(1) sales **representation**, (2) binary **representation**

A person who has been declared incompetent should have

legal **representation**.

## theoretical

*adj.* relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience

*synonym* : conceptual, conjectural, ideal

(1) **theoretical** models, (2) **theoretical** physicist

Absolute zero is the lowest **theoretical** temperature.

## independence

*n.* freedom from another's or others' control or influence

*synonym* : freedom, liberty, autonomy

(1) financial **independence**, (2) **independence** ceremony

There is nothing more valuable than **independence** and freedom.

## advocate

*n.* a person who supports or suggests an idea, development, or way of doing something

*synonym* : proponent, exponent, promoter

(1) an **advocate** of disarmament, (2) public education

**advocates**

**Advocates** of abolishing the death penalty often argue that the alternative heaviest sentence should be life in prison.

## entity

*n.* something that exists independently and has its own identity

*synonym* : body, object, existent

(1) legal **entity**, (2) government **entity**

A company is a distinct legal **entity**.

## universal

*adj.* existing or affecting everywhere or everyone

*synonym* : common, broad, worldwide

(1) **universal** life, (2) principles of **universal** design

The picture earned near- **universal** acclaim from critics.

## principle

*n.* a fundamental law or truth that explains or controls how something happens or works

*synonym* : rule, creed, code

(1) **principle** of treatment, (2) **principle** in business  
Efficiency isn't an essential **principle** here; fairness is.

## monad

*n.* a philosophical concept originating from ancient Greek philosophy, representing an ultimate indivisible unit or element, which can signify a fundamental building block of reality, an elementary particle, or a basic entity that possesses inherent qualities

*synonym*: unit, entity, atom

(1) chemical **monad**, (2) **monad** instances

In biology, a **monad** cell is a single-celled organism.

## numb

*adj.* unable to feel physical sensation and movement; not showing human feeling or sensitivity

*synonym*: dazed, insensitive, emotionless

(1) **numb** with cold, (2) a **numb** mind

My left arm became **numb**.

## platonic

*adj.* (of relationship or emotion) friendly or affectionate but not sexual

*synonym*: nonphysical, nonsexual, spiritual

(1) **platonic** relationship, (2) **platonic** love

His relationship with her was completely **platonic**.

## argue

*v.* to express differing opinions or points of view, often in a heated or contentious manner; to present a case or reasoning to persuade or convince others

*synonym*: debate, dispute, quarrel

(1) **argue** a case, (2) **argue** passionately

The couple began to **argue** over which restaurant to go to for dinner.

## concrete

*adj.* existing in a physical or material form rather than an abstract one; based on facts rather than ideas or guesses; made of or covered with cement

*synonym*: actual, factual, hardened

(1) a **concrete** noun, (2) **concrete** examples

The president asked for a more **concrete** plan.

## regardless

*adv.* not paying attention or considering something or someone even if the situation is bad or there are difficulties

*synonym* : anyhow, nevertheless, still

(1) **regardless** of the difficulties, (2) **regardless** tread  
People can pick out superior products **regardless** of the quality of the advertising.

## Euclidean

*adj.* relating to or based on the geometry set forth by the ancient Greek mathematician Euclid, characterized by straight lines, flat planes, and the absence of curvature

*synonym* : geometric

(1) **Euclidean** geometry, (2) **Euclidean** space  
**Euclidean** distance measures the straight-line distance between two points in space.

## geometry

*n.* the area of pure mathematics that deals with the points, lines, curves, and surfaces

(1) Euclidean **geometry**, (2) spherical **geometry**

The mathematician pioneered fractal **geometry**.

## manifestation

*n.* a visible or tangible form of something, especially a particular sign of a disease or condition

*synonym* : expression, embodiment, presentation

(1) **manifestation** of a deeper problem, (2) **manifestation** of psychological stress

The **manifestation** of his anxiety was evident in his shaking hands.

## physically

*adv.* in a way related to a person's body or appearance rather than their mind

(1) **physically** and mentally, (2) stay **physically** fit

Having a **physically** healthy physique is essential for a great life.

## definitely

*adv.* without any question and beyond doubt; clearly

*synonym* : absolutely, certainly, indeed

(1) **definitely** become a problem, (2) say **definitely**

The paper is **definitely** worth reading thoroughly.

## logic

*n.* a way of thinking or reasoning conducted or evaluated by strict validity principles; the study of correct reasoning or good arguments

*synonym* : reasoning, reason, ratiocination

(1) an indisputable **logic**, (2) a demonstration in **logic**

There's no **logic** in his description.

## conscious

*adj.* being aware of and able to respond to what is happening around you

*synonym* : aware, cognizant, deliberate

(1) **conscious** effort, (2) **conscious** of having succeeded

He became **conscious** that he was being followed.

## abstract

*adj.* based on general ideas, feelings, or qualities and not on any a physical or concrete existence

*synonym* : conceptual, theoretical, ideational

(1) an **abstract** noun, (2) **abstract** science

The invention of the camera triggered the development of **abstract** painting.

## relation

*n.* the way two persons or groups of people feel and act toward one another

*synonym* : association, linkage, connection

(1) **relation** between cause and effect, (2) **relation** of inclusion

The industrial **relations** laws were passed with little to no alteration.

## discern

*v.* to see, perceive, or understand something that is not obvious

*synonym* : determine, distinguish, sense

(1) **discern** the big picture, (2) **discern** friend from foe

Parents need to help their children **discern** right and wrong.

## brain

*n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling

*synonym*: intellect, mind, encephalon

(1) basic **brain** function, (2) permanent **brain** damage

X-rays revealed a small tumor in his **brain**.

## chaos

*n.* a state of complete confusion or disorder, often characterized by a lack of predictability or control

*synonym*: disorder, turmoil, confusion

(1) **chaos** theory, (2) midst of **chaos**

The conference room was in **chaos** as everyone tried to speak at once.

## proponent

*n.* a person who supports an idea or pleads for a cause

*synonym*: advocate, devotee, follower

(1) enthusiastic **proponent**, (2) **proponent** of world peace

Einstein was a **proponent** of the theory of relativity.

## lifetime

*n.* the duration of someone's life or something's existence;

*synonym*: lifespan, duration

(1) **lifetime** benefits, (2) **lifetime** ban from the sport

She had lived through two world wars in her **lifetime**.

## construct

*v.* to build or create something; to assemble or combine different parts to form something whole

*synonym*: build, assemble, create

(1) **construct** a 3D image, (2) **construct** a dam

He **constructs** hypotheses that no mathematician has ever imagined before.

## attempt

*n.* an act or effort of trying to do something, especially something difficult

*synonym*: endeavor, effort, try

(1) the **attempt** to rescue the hostages, (2) a reckless



### **attempt**

The third **attempt** was far more successful.

### **axiom**

*n.* a statement or principle that is regarded as being self-evidently true and does not require proof or justification; a fundamental truth upon which other truths or theories are based

*synonym* : principle, maxim, postulate

(1) self-evident **axiom**, (2) fundamental **axiom**

It is an **axiom** in mathematics that two parallel lines never intersect.

### **philosophy**

*n.* the study of general and fundamental questions, such as those about existence, reason, knowledge, values, mind

*synonym* : doctrine, attitude, creed

(1) **philosophy** of education, (2) western **philosophy**

Ethics is a branch of **philosophy**.

### **nonetheless**

*adv.* in spite of what has just been said or done; nevertheless

*synonym* : nevertheless, regardless, still

(1) we are **nonetheless** confident, (2) love him

**nonetheless**

They each choose **nonetheless** to battle.

### **hyperbole**

*n.* exaggerated statements or claims not meant to be taken used to create emphasis or to make a point

*synonym* : exaggeration, overstatement, embellishment

(1) escalate the **hyperbole**, (2) avoid **hyperbole** in writing

The marketing campaign relied heavily on **hyperbole** to sell the product.

### **elliptical**

*adj.* having the shape of an oval (= a closed plane curve); using a word or expression that is ambiguous or vague, especially to mislead or avoid committing oneself

*synonym* : oval, egg-shaped, oblong

(1) an **elliptical** motion, (2) an **elliptical** galaxies

The satellite's **elliptical** orbit made it appear to change its distance from earth.

## curvature

*n.* the degree to which a line or surface deviates from being straight or flat; a measure of the amount of bending of a curve

*synonym*: bend, arch, bow

(1) the degree of **curvature**, (2) spinal **curvature**

The **curvature** of the earth can be seen from space.

## outcome

*n.* the result or effect of an action, event, etc.

*synonym*: result, consequence, effect

(1) improved student **outcomes**, (2) a desirable **outcome**

They awaited news of the **outcome** of the election.

## physics

*n.* the science of matter and energy and their interactions

(1) nuclear **physics**, (2) laws of **physics**

He studied the **physics** of radiation.

## laureate

*n.* a person who has been awarded an honor or a prize for achievement in a particular field, especially in literature or academia; a poet who is honored for achieving the highest level of excellence in a competition or for producing a lifetime body of work

(1) Oscar **laureate**, (2) poet **laureate**

The Nobel **laureate** delivered an inspiring speech to the graduating class.

## phrase

*n.* a group of words that mean something specific when used together

*synonym*: expression, idiom, term

(1) ready-made **phrases**, (2) noun **phrase**

We bought a Spanish **phrase** book.

## unreasonable

*adj.* not fair, sensible, or likely to be true

*synonym*: unjustified, unfair, excessive

(1) **unreasonable** demand, (2) an **unreasonable** amount of

money

It would be **unreasonable** for me to expect you to work overtime without any extra compensation.

## develop

v. to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created

*synonym*: evolve, progress, advance

(1) **develop** a strategy, (2) **develop** a skill

We must **develop** a new system to streamline our workflow and increase efficiency.

## vacuum

n. a space empty of matter; a device or tool used for cleaning or removing debris by creating suction

*synonym*: void, emptiness, gap

(1) **vacuum** cleaner, (2) **vacuum** packing

Please use the **vacuum** to clean up the mess on the floor.

## phenomenon

n. something that exists and can be perceptible, especially one that is not fully understood

*synonym*: marvel, wonder, splendor

(1) natural **phenomenon**, (2) historical **phenomenon**

A rainbow is a natural **phenomenon**.

## framework

n. the structural components of a building or object that support its weight and give it form; the underlying structure of a system, concept, or text

*synonym*: structure, scheme, foundation

(1) legal **framework**, (2) the **framework** of a house

He devised a new analytical **framework** to capture the phenomenon.

## instance

n. a particular example or single occurrence of something

*synonym*: example, sample, illustration

(1) for **instance**, (2) notable **instance**

These articles cite five **instances** of climate change.

## hardy

*adj.* able to withstand harsh conditions or difficult circumstances; robust, sturdy, or resilient

*synonym*: tough, sturdy, resilient

(1) **hardy** plants, (2) **hardy** breed

The **hardy** construction workers worked tirelessly in the scorching heat to complete the project.

## boast

*v.* to talk about someone's accomplishments, wealth, or abilities excessively with undue pride and self-satisfaction

*synonym*: show off, brag, bluster

(1) **boast** of his success, (2) **boast** a long history

This town **boasts** a national park.

## cryptography

*n.* the study of the techniques and methods used for secure communication and information processing, particularly using codes and ciphers

*synonym*: coding, steganography, encryption

(1) asymmetric **cryptography**, (2) digital **cryptography**

The software engineers developed a new **cryptography** algorithm to protect users' data.

## genetics

*n.* the branch of biology that studies genes, genetic variation, and heredity in organisms

(1) the science of **genetics**, (2) **genetics** discrimination

He is a specialist in the **genetics** of aging.

## stumble

*v.* to miss a step and fall or nearly fall; to walk unsteadily

*synonym*: bumble, struggle, misstep

(1) **stumble** financially, (2) **stumble** through life

She **stumbled** over the tree root.

## sequence

*n.* a series of related events, actions, numbers, etc., which have a particular order

*synonym*: arrangement, succession, series

(1) the **sequence** of the seasons, (2) the DNA **sequence**  
We do move forward with those tasks in **sequence** next week.

## sunflower

*n.* a plant with large, round flower heads that have bright yellow petals and a dark center, grown for its edible seeds and oil, as well as for decorative purposes

*synonym* : helianthus

(1) **sunflower** oil, (2) **sunflower** field

The **sunflower** seeds can be roasted and eaten as a snack.

## petal

*n.* one of the separate, usually colored, segments of a flower that produce its shape and are often found arranged in a circle around the reproductive parts

*synonym* : blossom, flower, bloom

(1) **petal** shape, (2) rose **petal**

The botany field is concerned with studying the structure of plant **petals**.

## arrangement

*n.* a plan or preparation for the future event; the action or process of placing things in a particular order

*synonym* : placement, configuration, account

(1) **arrangement** of the furniture, (2) **arrangement** committee

As a first **arrangement**, we agreed to meet the following Friday.

## structure

*n.* the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts

*synonym* : construction, architecture, establishment

(1) the **structure** of a machine, (2) **structure** and function of the brain

The organizational **structure** of start-ups is often flat and straightforward.

## pineapple

*n.* tropical fruit with a rough, spiky exterior and sweet, juicy flesh inside, often used in cooking, baking, or as a snack

*synonym* : ananas, tropical fruit, bromeliad

(1) ripe **pineapple**, (2) canned **pineapple**

I love to eat fresh **pineapple** in my fruit salad.

## branch

*n.* a division of a tree or woody shrub that grows out from the trunk or a main stem; a division of some larger or more complex organization

*synonym* : limb, twig, bough

(1) **branch** office, (2) a **branch** pipe

The **branch** of the tree had fallen and blocked the road.

## bronchus

*n.* (in the plural, "bronchi") either of the two main branches of the trachea that lead to the lungs and distribute air to the bronchioles and alveoli

*synonym* : bronchi, airway, tube

(1) left **bronchus**, (2) **bronchus** wall

Smoking damages the **bronchus** and increases the risk of lung cancer.

## lung

*n.* either of the two organs in the chest that people and some animals use for breathing

(1) **lung** capacity, (2) do **lung** transplantation

He has terminal **lung** cancer.

## relative

*adj.* considered and evaluated through comparison with something else

*synonym* : comparative, proximate, congeneric

(1) a remote **relative**, (2) **relative** factors

Most countries prohibit sexual activity between certain close **relatives**.

## knot

*n.* a tight interlacing of something such as rope or thread

*synonym* : tangle, entanglement, snarl

(1) a hard **knot**, (2) a **knot** of people

The boy scout showed us how to tie a **knot** that wouldn't

come undone.

## unravel

v. undo twisted, knitted, or woven threads by separating it  
*synonym*: separate, unknot, ravel

(1) **unravel** a knit, (2) **unravel** a plot

Detectives are still attempting to **unravel** the mystery of his death.

## process

n. a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products

*synonym*: procedure, method, system

(1) **process** improvement, (2) decision-making **process**

The **process** for applying for a visa can be lengthy and complicated.

## string

n. long, thin material used for tying things together, composed of several twisted threads

*synonym*: line, wire, rope

(1) retie the **string** and make it strong, (2) tense piano **strings**

She wore a **string** of pearls around her neck.

## influential

adj. having significant impact or power on someone or something

*synonym*: potent, significant, meaningful

(1) an **influential** newspaper, (2) an **influential** politician

Early childhood experiences are very **influential** for people.

## chime

v. to make a ringing sound, usually by striking an object like a bell or wind chime; to harmonize or agree with something else; (noun) a set of musical bells or metal tubes that produce a musical sound when struck or played

*synonym*: ring, toll, peal

(1) glass wind **chime**, (2) **chime** with the music  
The grandfather clock **chimed** solemnly, signaling the hour.

## artificial

*adj.* not natural and made by human beings; not real but produced to resemble something

*synonym* : synthetic, man-made, manufactured

(1) **artificial** flowers, (2) **artificial** environment

The **artificial** intelligence system has revolutionized the way we live and work.

## humming

*adj.* producing a continuous, low, vibrating sound like that of the bee

*synonym* : buzzing, droning, vibrating

(1) **humming** sound, (2) **humming** bird

The **humming** of the bees filled the air as she walked through the garden.

## divine

*adj.* of, from, or like a god; holy or sacred

*synonym* : godly, holy, sacred

(1) **divine** intervention, (2) **divine** grace

The view from the mountaintop was truly **divine**.

## spiritual

*adj.* relating to or affecting the human spirit or soul as opposed to material or physical things

*synonym* : otherworldly, ethereal, transcendental

(1) constant **spiritual** striving, (2) **spiritual** leader

The meditation class was focused on finding inner peace and cultivating a more **spiritual** connection with the universe.

## specific

*adj.* clearly defined or particular to a certain thing or situation; distinct, explicit, and precise

*synonym* : particular, definite, distinct

(1) **specific** instructions, (2) industry- **specific** regulations

The scientist conducted a study that provided **specific** details about the species' behavior.



## distort

*v.* to change something's shape, appearance, or sound so that it appears weird or unclear

*synonym*: fudge, deform, contort

(1) **distort** the facts, (2) **distort** the economy

Economists contend that taxes **distort** consumer behavior in general.

## zen

*n.* a school of Mahayana Buddhism that originated in China and was later developed in Japan, emphasizing the practice of meditation as the way to achieve enlightenment or awakening; (adjective) characterized by a sense of peace and tranquility, often through the practice of meditation or the use of natural elements

*synonym*: meditative, peaceful, tranquil

(1) **zen** garden, (2) **zen** meditation

Daily yoga helped her achieve a **zen** state of mind and calmness.

## Session 2: Spelling

1. we are non\_\_\_\_\_ss confident *adv.* in spite of what has just been said or done; nevertheless
2. Eu\_\_\_\_\_an space *adj.* relating to or based on the geometry set forth by the ancient Greek mathematician Euclid, characterized by straight lines, flat planes, and the absence of curvature
3. a desirable ou\_\_\_\_\_e *n.* the result or effect of an action, event, etc.
4. a demonstration in lo\_\_c *n.* a way of thinking or reasoning conducted or evaluated by strict validity principles; the study of correct reasoning or good arguments
5. co\_\_\_\_\_ct a 3D image *v.* to build or create something; to assemble or combine different parts to form something whole
6. pr\_\_\_\_\_nt of world peace *n.* a person who supports an idea or pleads for a cause
7. ch\_\_e with the music *v.* to make a ringing sound, usually by striking an object like a bell or wind chime; to harmonize or agree with something else; (noun) a set of musical bells or metal tubes that produce a musical sound when struck or played
8. legal fr\_\_\_\_\_rk *n.* the structural components of a building or object that support its weight and give it form; the underlying structure of a system, concept, or text

ANSWERS: 1. nonetheless, 2. Euclidean, 3. outcome, 4. logic, 5. construct, 6. proponent, 7. chime, 8. framework

9. co\_\_\_\_\_us of having succeeded      *adj.* being aware of and able to respond to what is happening around you
10. midst of ch\_\_s      *n.* a state of complete confusion or disorder, often characterized by a lack of predictability or control
11. western phi\_\_\_\_\_hy      *n.* the study of general and fundamental questions, such as those about existence, reason, knowledge, values, mind
12. un\_\_\_\_\_al life      *adj.* existing or affecting everywhere or everyone
13. escalate the hy\_\_\_\_\_le      *n.* exaggerated statements or claims not meant to be taken used to create emphasis or to make a point
14. ind\_\_\_\_\_nce ceremony      *n.* freedom from another's or others' control or influence
15. pr\_\_\_\_\_le of treatment      *n.* a fundamental law or truth that explains or controls how something happens or works
16. li\_\_\_\_\_me ban from the sport      *n.* the duration of someone's life or something's existence;
17. closed po\_\_\_\_\_n      *n.* a closed plane figure bounded by three or more straight sides that meet at the same number of angles (vertices)
18. laws of ph\_\_\_\_\_s      *n.* the science of matter and energy and their interactions
19. avoid hy\_\_\_\_\_le in writing      *n.* exaggerated statements or claims not meant to be taken used to create emphasis or to make a point

ANSWERS: 9. conscious, 10. chaos, 11. philosophy, 12. universal, 13. hyperbole, 14. independence, 15. principle, 16. lifetime, 17. polygon, 18. physics, 19. hyperbole

20. de\_\_\_\_p a skill *v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created
21. ripe pi\_\_\_\_\_le *n.* tropical fruit with a rough, spiky exterior and sweet, juicy flesh inside, often used in cooking, baking, or as a snack
22. learn new co\_\_\_\_\_ts *n.* an idea or principle associated with something abstract
23. fundamental ax\_\_m *n.* a statement or principle that is regarded as being self-evidently true and does not require proof or justification; a fundamental truth upon which other truths or theories are based
24. natural phe\_\_\_\_\_on *n.* something that exists and can be perceptible, especially one that is not fully understood
25. st\_\_\_\_\_re and function of the brain *n.* the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts
26. de\_\_\_\_p a strategy *v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created
27. a good grounding in mat\_\_\_\_\_cs *n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement

ANSWERS: 20. develop, 21. pineapple, 22. concept, 23. axiom, 24. phenomenon, 25. structure, 26. develop, 27. mathematics

28. an ad\_\_\_\_\_te of disarmament *n.* a person who supports or suggests an idea, development, or way of doing something
29. ha\_\_y breed *adj.* able to withstand harsh conditions or difficult circumstances; robust, sturdy, or resilient
30. tense piano st\_\_\_\_gs *n.* long, thin material used for tying things together, composed of several twisted threads
31. industry-sp\_\_\_\_\_ic regulations *adj.* clearly defined or particular to a certain thing or situation; distinct, explicit, and precise
32. ar\_\_e a case *v.* to express differing opinions or points of view, often in a heated or contentious manner; to present a case or reasoning to persuade or convince others
33. love him non\_\_\_\_\_ss *adv.* in spite of what has just been said or done; nevertheless
34. re\_\_\_\_\_on of inclusion *n.* the way two persons or groups of people feel and act toward one another
35. binary rep\_\_\_\_\_ion *n.* the act of speaking, acting, or being present on behalf of someone officially; a statement of facts and reasons made in appealing or protesting
36. ch\_\_s theory *n.* a state of complete confusion or disorder, often characterized by a lack of predictability or control
37. asymmetric cry\_\_\_\_\_phy *n.* the study of the techniques and methods used for secure communication and information processing, particularly using codes and ciphers

ANSWERS: 28. advocate, 29. hardy, 30. string, 31. specific, 32. argue, 33. nonetheless, 34. relation, 35. representation, 36. chaos, 37. cryptography

38. pr\_\_\_\_\_le in business *n.* a fundamental law or truth that explains or controls how something happens or works
39. the \_\_\_\_\_al physicist *adj.* relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience
40. ha\_\_y plants *adj.* able to withstand harsh conditions or difficult circumstances; robust, sturdy, or resilient
41. an indisputable lo\_\_c *n.* a way of thinking or reasoning conducted or evaluated by strict validity principles; the study of correct reasoning or good arguments
42. a k\_\_t of people *n.* a tight interlacing of something such as rope or thread
43. Eu\_\_\_\_\_an geometry *adj.* relating to or based on the geometry set forth by the ancient Greek mathematician Euclid, characterized by straight lines, flat planes, and the absence of curvature
44. Euclidean ge\_\_\_\_\_ry *n.* the area of pure mathematics that deals with the points, lines, curves, and surfaces
45. man\_\_\_\_\_ion of psychological stress *n.* a visible or tangible form of something, especially a particular sign of a disease or condition
46. the in\_\_\_\_\_on of new techniques *n.* the creation of a new device or process resulting from study and experimentation; the act of inventing

ANSWERS: 38. principle, 39. theoretical, 40. hardy, 41. logic, 42. knot, 43. Euclidean, 44. geometry, 45. manifestation, 46. invention

47. left br\_\_\_\_us *n.* (in the plural, "bronchi") either of the two main branches of the trachea that lead to the lungs and distribute air to the bronchioles and alveoli
48. re\_\_\_\_ve factors *adj.* considered and evaluated through comparison with something else
49. art\_\_\_\_al flowers *adj.* not natural and made by human beings; not real but produced to resemble something
50. the degree of cu\_\_\_\_re *n.* the degree to which a line or surface deviates from being straight or flat; a measure of the amount of bending of a curve
51. mat\_\_\_\_cs competition *n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement
52. ready-made ph\_\_\_\_es *n.* a group of words that mean something specific when used together
53. regular po\_\_\_\_n *n.* a closed plane figure bounded by three or more straight sides that meet at the same number of angles (vertices)
54. ab\_\_\_\_ct science *adj.* based on general ideas, feelings, or qualities and not on any a physical or concrete existence
55. noun ph\_\_\_\_e *n.* a group of words that mean something specific when used together
56. a br\_\_\_\_h pipe *n.* a division of a tree or woody shrub that grows out from the trunk or a main stem; a division of some larger or more complex organization

ANSWERS: 47. bronchus, 48. relative, 49. artificial, 50. curvature, 51. mathematics, 52. phrase, 53. polygon, 54. abstract, 55. phrase, 56. branch

57. improved student ou\_\_\_\_\_es      *n.* the result or effect of an action, event, etc.
58. def\_\_\_\_\_ly become a problem      *adv.* without any question and beyond doubt; clearly
59. a scientific di\_\_\_\_\_ry      *n.* the act or process of finding information, a place, or an object, or learning about something that was previously not known
60. pre-Christian an\_\_\_\_\_t      *adj.* relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old
61. a n\_\_b mind      *adj.* unable to feel physical sensation and movement; not showing human feeling or sensitivity
62. di\_\_\_\_\_t the facts      *v.* to change something's shape, appearance, or sound so that it appears weird or unclear
63. reg\_\_\_\_\_ss tread      *adv.* not paying attention or considering something or someone even if the situation is bad or there are difficulties
64. pl\_\_\_\_\_ic relationship      *adj.* (of relationship or emotion) friendly or affectionate but not sexual
65. public education ad\_\_\_\_\_tes      *n.* a person who supports or suggests an idea, development, or way of doing something
66. z\_n garden      *n.* a school of Mahayana Buddhism that originated in China and was later developed in Japan, emphasizing the practice of meditation as the way to achieve enlightenment or awakening; (adjective) characterized by a sense of peace and tranquility, often through the practice of meditation or the use of natural elements

ANSWERS: 57. outcome, 58. definitely, 59. discovery, 60. ancient, 61. numb, 62. distort, 63. regardless, 64. platonic, 65. advocate, 66. zen



67. constant sp\_\_\_\_\_al striving *adj.* relating to or affecting the human spirit or soul as opposed to material or physical things
68. a co\_\_\_\_\_te noun *adj.* existing in a physical or material form rather than an abstract one; based on facts rather than ideas or guesses; made of or covered with cement
69. common in\_\_\_\_\_on *n.* the creation of a new device or process resulting from study and experimentation; the act of inventing
70. co\_\_\_\_\_us effort *adj.* being aware of and able to respond to what is happening around you
71. permanent br\_\_n damage *n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
72. the great di\_\_\_\_\_ry of the century *n.* the act or process of finding information, a place, or an object, or learning about something that was previously not known
73. spinal cu\_\_\_\_\_re *n.* the degree to which a line or surface deviates from being straight or flat; a measure of the amount of bending of a curve
74. basic br\_\_n function *n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
75. et\_\_\_\_\_al light *adj.* delicate, light, and airy; extremely refined or subtle; heavenly or spiritual
76. government en\_\_\_\_y *n.* something that exists independently and has its own identity

ANSWERS: 67. spiritual, 68. concrete, 69. invention, 70. conscious, 71. brain, 72. discovery, 73. curvature, 74. brain, 75. ethereal, 76. entity

77. co\_\_\_\_\_te examples *adj.* existing in a physical or material form rather than an abstract one; based on facts rather than ideas or guesses; made of or covered with cement
78. glass wind ch\_\_\_e *v.* to make a ringing sound, usually by striking an object like a bell or wind chime; to harmonize or agree with something else; (noun) a set of musical bells or metal tubes that produce a musical sound when struck or played
79. expansion of the un\_\_\_\_\_se *n.* everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy
80. pr\_\_\_\_\_s improvement *n.* a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
81. br\_\_\_h office *n.* a division of a tree or woody shrub that grows out from the trunk or a main stem; a division of some larger or more complex organization
82. say def\_\_\_\_\_ly *adv.* without any question and beyond doubt; clearly
83. na\_\_\_e to Africa *adj.* connecting with or describing someone's birth country or place of birth, or someone born in a specific country or place

ANSWERS: 77. concrete, 78. chime, 79. universe, 80. process, 81. branch, 82. definitely, 83. native

84. va\_\_\_m packing *n.* a space empty of matter; a device or tool used for cleaning or removing debris by creating suction
85. history of hu\_\_\_\_\_nd *n.* the whole of the living human inhabitants of the earth
86. stay phy\_\_\_\_\_ly fit *adv.* in a way related to a person's body or appearance rather than their mind
87. phy\_\_\_\_\_ly and mentally *adv.* in a way related to a person's body or appearance rather than their mind
88. poet la\_\_\_\_\_te *n.* a person who has been awarded an honor or a prize for achievement in a particular field, especially in literature or academia; a poet who is honored for achieving the highest level of excellence in a competition or for producing a lifetime body of work
89. an\_\_\_\_\_t stories *adj.* relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old
90. reg\_\_\_\_\_ss of the difficulties *adv.* not paying attention or considering something or someone even if the situation is bad or there are difficulties
91. hu\_\_\_\_\_nd as a species *n.* the whole of the living human inhabitants of the earth
92. historical phe\_\_\_\_\_on *n.* something that exists and can be perceptible, especially one that is not fully understood
93. chemical mo\_\_d *n.* a philosophical concept originating from ancient Greek philosophy, representing an ultimate indivisible unit or element, which can signify a fundamental building block of reality, an elementary particle, or a basic entity that possesses inherent qualities

ANSWERS: 84. vacuum, 85. humankind, 86. physically, 87. physically, 88. laureate, 89. ancient, 90. regardless, 91. humankind, 92. phenomenon, 93. monad

94. un\_\_\_\_\_l a plot *v.* undo twisted, knitted, or woven threads by separating it
95. for in\_\_\_\_\_ce *n.* a particular example or single occurrence of something
96. bo\_\_t a long history *v.* to talk about someone's accomplishments, wealth, or abilities excessively with undue pride and self-satisfaction
97. principles of un\_\_\_\_\_al design *adj.* existing or affecting everywhere or everyone
98. di\_\_\_\_\_t the economy *v.* to change something's shape, appearance, or sound so that it appears weird or unclear
99. l\_\_g capacity *n.* either of the two organs in the chest that people and some animals use for breathing
100. co\_\_\_\_\_t car *n.* an idea or principle associated with something abstract
101. financial ind\_\_\_\_\_nce *n.* freedom from another's or others' control or influence
102. retie the st\_\_\_g and make it strong *n.* long, thin material used for tying things together, composed of several twisted threads
103. enthusiastic pr\_\_\_\_\_nt *n.* a person who supports an idea or pleads for a cause
104. legal en\_\_\_y *n.* something that exists independently and has its own identity
105. the\_\_\_\_\_al models *adj.* relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience

ANSWERS: 94. unravel, 95. instance, 96. boast, 97. universal, 98. distort, 99. lung, 100. concept, 101. independence, 102. string, 103. proponent, 104. entity, 105. theoretical

106. n__b with cold	<i>adj.</i> unable to feel physical sensation and movement; not showing human feeling or sensitivity
107. man_____ion of a deeper problem	<i>n.</i> a visible or tangible form of something, especially a particular sign of a disease or condition
108. re_____on between cause and effect	<i>n.</i> the way two persons or groups of people feel and act toward one another
109. et_____al beauty	<i>adj.</i> delicate, light, and airy; extremely refined or subtle; heavenly or spiritual
110. arr_____nt of the furniture	<i>n.</i> a plan or preparation for the future event; the action or process of placing things in a particular order
111. pe__l shape	<i>n.</i> one of the separate, usually colored, segments of a flower that produce its shape and are often found arranged in a circle around the reproductive parts
112. arr_____nt committee	<i>n.</i> a plan or preparation for the future event; the action or process of placing things in a particular order
113. do l__g transplantation	<i>n.</i> either of the two organs in the chest that people and some animals use for breathing
114. st_____e financially	<i>v.</i> to miss a step and fall or nearly fall; to walk unsteadily
115. the science of ge_____cs	<i>n.</i> the branch of biology that studies genes, genetic variation, and heredity in organisms
116. a reckless at_____t	<i>n.</i> an act or effort of trying to do something, especially something difficult

ANSWERS: 106. numb, 107. manifestation, 108. relation, 109. ethereal, 110. arrangement, 111. petal, 112. arrangement, 113. lung, 114. stumble, 115. genetics, 116. attempt

117. mo\_\_d instances *n.* a philosophical concept originating from ancient Greek philosophy, representing an ultimate indivisible unit or element, which can signify a fundamental building block of reality, an elementary particle, or a basic entity that possesses inherent qualities
118. the at\_\_\_\_t to rescue the hostages *n.* an act or effort of trying to do something, especially something difficult
119. the st\_\_\_\_\_re of a machine *n.* the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts
120. ge\_\_\_\_\_cs discrimination *n.* the branch of biology that studies genes, genetic variation, and heredity in organisms
121. co\_\_\_\_\_ct a dam *v.* to build or create something; to assemble or combine different parts to form something whole
122. su\_\_\_\_\_er oil *n.* a plant with large, round flower heads that have bright yellow petals and a dark center, grown for its edible seeds and oil, as well as for decorative purposes
123. va\_\_\_m cleaner *n.* a space empty of matter; a device or tool used for cleaning or removing debris by creating suction
124. Oscar la\_\_\_\_\_te *n.* a person who has been awarded an honor or a prize for achievement in a particular field, especially in literature or academia; a poet who is honored for achieving the highest level of excellence in a competition or for producing a lifetime body of work

ANSWERS: 117. monad, 118. attempt, 119. structure, 120. genetics, 121. construct, 122. sunflower, 123. vacuum, 124. laureate

125. the DNA se\_\_\_\_ce  
*n.* a series of related events, actions, numbers, etc., which have a particular order
126. m\_\_e incident  
*adj.* used to emphasize how insignificant or minor someone or something is
127. sp\_\_\_\_\_al leader  
*adj.* relating to or affecting the human spirit or soul as opposed to material or physical things
128. an inf\_\_\_\_\_al newspaper  
*adj.* having significant impact or power on someone or something
129. br\_\_\_\_\_us wall  
*n.* (in the plural, "bronchi") either of the two main branches of the trachea that lead to the lungs and distribute air to the bronchioles and alveoli
130. de\_\_\_e topic  
*n.* a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives
131. li\_\_\_\_\_me benefits  
*n.* the duration of someone's life or something's existence;
132. sp\_\_\_\_\_ic instructions  
*adj.* clearly defined or particular to a certain thing or situation; distinct, explicit, and precise
133. a hard k\_\_t  
*n.* a tight interlacing of something such as rope or thread
134. m\_\_e acquaintance  
*adj.* used to emphasize how insignificant or minor someone or something is

ANSWERS: 125. sequence, 126. mere, 127. spiritual, 128. influential, 129. bronchus, 130. debate, 131. lifetime, 132. specific, 133. knot, 134. mere

135. di\_\_\_\_\_n friend from foe *v.* to see, perceive, or understand something that is not obvious
136. phi\_\_\_\_\_hy of education *n.* the study of general and fundamental questions, such as those about existence, reason, knowledge, values, mind
137. di\_\_\_\_\_n the big picture *v.* to see, perceive, or understand something that is not obvious
138. un\_\_\_\_\_l a knit *v.* undo twisted, knitted, or woven threads by separating it
139. an ab\_\_\_\_\_ct noun *adj.* based on general ideas, feelings, or qualities and not on any a physical or concrete existence
140. notable in \_\_\_\_\_ce *n.* a particular example or single occurrence of something
141. an unr\_\_\_\_\_ble amount of money *adj.* not fair, sensible, or likely to be true
142. su\_\_\_\_\_er field *n.* a plant with large, round flower heads that have bright yellow petals and a dark center, grown for its edible seeds and oil, as well as for decorative purposes
143. di\_\_\_\_e intervention *adj.* of, from, or like a god; holy or sacred
144. nuclear ph\_\_\_\_\_s *n.* the science of matter and energy and their interactions
145. canned pi\_\_\_\_\_le *n.* tropical fruit with a rough, spiky exterior and sweet, juicy flesh inside, often used in cooking, baking, or as a snack
146. self-evident ax\_\_m *n.* a statement or principle that is regarded as being self-evidently true and does not require proof or justification; a fundamental truth upon which other truths or theories are based

ANSWERS: 135. discern, 136. philosophy, 137. discern, 138. unravel, 139. abstract, 140. instance, 141. unreasonable, 142. sunflower, 143. divine, 144. physics, 145. pineapple, 146. axiom



147. the eq\_\_\_\_on of poverty with ignorance
148. hu\_\_\_\_g bird
149. sales rep\_\_\_\_\_ion
150. ar\_\_e passionately
151. decision-making pr\_\_\_\_s
152. spherical ge\_\_\_\_ry
153. an ell\_\_\_\_\_al motion
- n.* the act of regarding as equal; (mathematics) a statement that expresses the equality of two expressions by connecting them with the equals sign
- adj.* producing a continuous, low, vibrating sound like that of the bee
- n.* the act of speaking, acting, or being present on behalf of someone officially; a statement of facts and reasons made in appealing or protesting
- v.* to express differing opinions or points of view, often in a heated or contentious manner; to present a case or reasoning to persuade or convince others
- n.* a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
- n.* the area of pure mathematics that deals with the points, lines, curves, and surfaces
- adj.* having the shape of an oval (= a closed plane curve); using a word or expression that is ambiguous or vague, especially to mislead or avoid committing oneself

ANSWERS: 147. equation, 148. humming, 149. representation, 150. argue, 151. process, 152. geometry, 153. elliptical

154. de\_\_\_e competition *n.* a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives
155. an inf\_\_\_\_\_al politician *adj.* having significant impact or power on someone or something
156. z\_n meditation *n.* a school of Mahayana Buddhism that originated in China and was later developed in Japan, emphasizing the practice of meditation as the way to achieve enlightenment or awakening; (adjective) characterized by a sense of peace and tranquility, often through the practice of meditation or the use of natural elements
157. a remote re\_\_\_\_\_ve *adj.* considered and evaluated through comparison with something else
158. rose pe\_\_l *n.* one of the separate, usually colored, segments of a flower that produce its shape and are often found arranged in a circle around the reproductive parts
159. an ell\_\_\_\_\_al galaxies *adj.* having the shape of an oval (= a closed plane curve); using a word or expression that is ambiguous or vague, especially to mislead or avoid committing oneself
160. st\_\_\_\_\_e through life *v.* to miss a step and fall or nearly fall; to walk unsteadily

ANSWERS: 154. debate, 155. influential, 156. zen, 157. relative, 158. petal, 159. elliptical, 160. stumble

161. di\_\_\_e grace *adj.* of, from, or like a god; holy or sacred
162. na\_\_\_e language *adj.* connecting with or describing someone's birth country or place of birth, or someone born in a specific country or place
163. the se\_\_\_\_\_ce of the seasons *n.* a series of related events, actions, numbers, etc., which have a particular order
164. pl\_\_\_\_\_ic love *adj.* (of relationship or emotion) friendly or affectionate but not sexual
165. digital cry\_\_\_\_\_phy *n.* the study of the techniques and methods used for secure communication and information processing, particularly using codes and ciphers
166. theory of the un\_\_\_\_\_se *n.* everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy
167. art\_\_\_\_\_al environment *adj.* not natural and made by human beings; not real but produced to resemble something
168. the fr\_\_\_\_\_rk of a house *n.* the structural components of a building or object that support its weight and give it form; the underlying structure of a system, concept, or text
169. unr\_\_\_\_\_ble demand *adj.* not fair, sensible, or likely to be true
170. bo\_\_t of his success *v.* to talk about someone's accomplishments, wealth, or abilities excessively with undue pride and self-satisfaction

ANSWERS: 161. divine, 162. native, 163. sequence, 164. platonic, 165. cryptography, 166. universe, 167. artificial, 168. framework, 169. unreasonable, 170. boast

171. a chemical eq\_\_\_\_on

*n.* the act of regarding as equal;  
(mathematics) a statement that  
expresses the equality of two  
expressions by connecting them with  
the equals sign

172. hu\_\_\_\_g sound

*adj.* producing a continuous, low, vibrating  
sound like that of the bee

ANSWERS: 171. equation, 172. humming

## Session 3: Fill in the Blanks

1. X-rays revealed a small tumor in his \_\_\_\_\_.  
*n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
  
2. The software engineers developed a new \_\_\_\_\_ algorithm to protect users' data.  
*n.* the study of the techniques and methods used for secure communication and information processing, particularly using codes and ciphers
  
3. People can pick out superior products \_\_\_\_\_ of the quality of the advertising.  
*adv.* not paying attention or considering something or someone even if the situation is bad or there are difficulties
  
4. The president asked for a more \_\_\_\_\_ plan.  
*adj.* existing in a physical or material form rather than an abstract one; based on facts rather than ideas or guesses; made of or covered with cement
  
5. The \_\_\_\_\_ over climate change continues to be a hot topic in politics.  
*n.* a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives
  
6. In biology, a \_\_\_\_\_ cell is a single-celled organism.  
*n.* a philosophical concept originating from ancient Greek philosophy, representing an ultimate indivisible unit or element, which can signify a fundamental building block of reality, an elementary particle, or a basic entity that possesses inherent qualities

ANSWERS: 1. brain, 2. cryptography, 3. regardless, 4. concrete, 5. debate, 6. monad

7. Parents need to help their children \_\_\_\_\_ right and wrong.  
*v.* to see, perceive, or understand something that is not obvious
8. The \_\_\_\_\_ music created a dreamlike atmosphere in the concert hall.  
*adj.* delicate, light, and airy; extremely refined or subtle; heavenly or spiritual
9. He studied the \_\_\_\_\_ of radiation.  
*n.* the science of matter and energy and their interactions
10. The invention of the camera triggered the development of \_\_\_\_\_ painting.  
*adj.* based on general ideas, feelings, or qualities and not on any a physical or concrete existence
11. He lost the election by \_\_\_\_\_ votes.  
*adj.* used to emphasize how insignificant or minor someone or something is
12. The picture earned near-\_\_\_\_\_ acclaim from critics.  
*adj.* existing or affecting everywhere or everyone
13. He devised a new analytical \_\_\_\_\_ to capture the phenomenon.  
*n.* the structural components of a building or object that support its weight and give it form; the underlying structure of a system, concept, or text
14. She \_\_\_\_\_ over the tree root.  
*v.* to miss a step and fall or nearly fall; to walk unsteadily
15. The vegetation here is almost wholly \_\_\_\_\_.  
*adj.* connecting with or describing someone's birth country or place of birth, or someone born in a specific country or place

ANSWERS: 7. discern, 8. ethereal, 9. physics, 10. abstract, 11. mere, 12. universal, 13. framework, 14. stumbled, 15. native

16. The grandfather clock \_\_\_\_\_ solemnly, signaling the hour.
- v.* to make a ringing sound, usually by striking an object like a bell or wind chime; to harmonize or agree with something else; (noun) a set of musical bells or metal tubes that produce a musical sound when struck or played
17. He \_\_\_\_\_ hypotheses that no mathematician has ever imagined before.
- v.* to build or create something; to assemble or combine different parts to form something whole
18. There is nothing more valuable than \_\_\_\_\_ and freedom.
- n.* freedom from another's or others' control or influence
19. The \_\_\_\_\_ seeds can be roasted and eaten as a snack.
- n.* a plant with large, round flower heads that have bright yellow petals and a dark center, grown for its edible seeds and oil, as well as for decorative purposes
20. On the geological time scale, \_\_\_\_\_ has existed for a brief moment.
- n.* the whole of the living human inhabitants of the earth
21. The \_\_\_\_\_ of his anxiety was evident in his shaking hands.
- n.* a visible or tangible form of something, especially a particular sign of a disease or condition
22. \_\_\_\_\_ of abolishing the death penalty often argue that the alternative heaviest sentence should be life in prison.
- n.* a person who supports or suggests an idea, development, or way of doing something
23. As a first \_\_\_\_\_ we agreed to meet the following Friday.
- n.* a plan or preparation for the future event; the action or process of placing things in a particular order

ANSWERS: 16. chimed, 17. constructs, 18. independence, 19. sunflower, 20. humankind, 21. manifestation, 22. Advocates, 23. arrangement,

24. It is an \_\_\_\_\_ in mathematics that two parallel lines never intersect.
- n.* a statement or principle that is regarded as being self-evidently true and does not require proof or justification; a fundamental truth upon which other truths or theories are based
25. She wore a \_\_\_\_\_ of pearls around her neck.
- n.* long, thin material used for tying things together, composed of several twisted threads
26. The satellite's \_\_\_\_\_ orbit made it appear to change its distance from earth.
- adj.* having the shape of an oval (= a closed plane curve); using a word or expression that is ambiguous or vague, especially to mislead or avoid committing oneself
27. Please use the \_\_\_\_\_ to clean up the mess on the floor.
- n.* a space empty of matter; a device or tool used for cleaning or removing debris by creating suction
28. The scientist conducted a study that provided \_\_\_\_\_ details about the species' behavior.
- adj.* clearly defined or particular to a certain thing or situation; distinct, explicit, and precise
29. He became \_\_\_\_\_ that he was being followed.
- adj.* being aware of and able to respond to what is happening around you
30. \_\_\_\_\_ distance measures the straight-line distance between two points in space.
- adj.* relating to or based on the geometry set forth by the ancient Greek mathematician Euclid, characterized by straight lines, flat planes, and the absence of curvature

ANSWERS: 24. axiom, 25. string, 26. elliptical, 27. vacuum, 28. specific, 29. conscious, 30. Euclidean



31. The conference room was in \_\_\_\_\_ as everyone tried to speak at once.  
*n.* a state of complete confusion or disorder, often characterized by a lack of predictability or control
32. We bought a Spanish \_\_\_\_\_ book.  
*n.* a group of words that mean something specific when used together
33. Early childhood experiences are very \_\_\_\_\_ for people.  
*adj.* having significant impact or power on someone or something
34. He is a specialist in the \_\_\_\_\_ of aging.  
*n.* the branch of biology that studies genes, genetic variation, and heredity in organisms
35. The \_\_\_\_\_ intelligence system has revolutionized the way we live and work.  
*adj.* not natural and made by human beings; not real but produced to resemble something
36. The paper is \_\_\_\_\_ worth reading thoroughly.  
*adv.* without any question and beyond doubt; clearly
37. Smoking damages the \_\_\_\_\_ and increases the risk of lung cancer.  
*n.* (in the plural, "bronchi") either of the two main branches of the trachea that lead to the lungs and distribute air to the bronchioles and alveoli
38. Necessity is the mother of \_\_\_\_\_.  
*n.* the creation of a new device or process resulting from study and experimentation; the act of inventing

ANSWERS: 31. chaos, 32. phrase, 33. influential, 34. genetics, 35. artificial, 36. definitely, 37. bronchus, 38. invention

39. He has a flair for \_\_\_\_\_.

- n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement

40. The third \_\_\_\_\_ was far more successful.

- n.* an act or effort of trying to do something, especially something difficult

41. They awaited news of the \_\_\_\_\_ of the election.

- n.* the result or effect of an action, event, etc.

42. There's no \_\_\_\_\_ in his description.

- n.* a way of thinking or reasoning conducted or evaluated by strict validity principles; the study of correct reasoning or good arguments

43. Daily yoga helped her achieve a \_\_\_\_\_ state of mind and calmness.

- n.* a school of Mahayana Buddhism that originated in China and was later developed in Japan, emphasizing the practice of meditation as the way to achieve enlightenment or awakening; (adjective) characterized by a sense of peace and tranquility, often through the practice of meditation or the use of natural elements

44. Economists contend that taxes \_\_\_\_\_ consumer behavior in general.

- v.* to change something's shape, appearance, or sound so that it appears weird or unclear

45. Einstein was a \_\_\_\_\_ of the theory of relativity.

- n.* a person who supports an idea or pleads for a cause

46. The \_\_\_\_\_ is about 13.8 billion years old.

- n.* everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy

ANSWERS: 39. mathematics, 40. attempt, 41. outcome, 42. logic, 43. zen, 44. distort, 45. proponent, 46. universe

47. The meditation class was focused on finding inner peace and cultivating a more \_\_\_\_\_ connection with the universe.

*adj.* relating to or affecting the human spirit or soul as opposed to material or physical things

48. In this class, you will learn how to solve quadratic \_\_\_\_\_.

*n.* the act of regarding as equal; (mathematics) a statement that expresses the equality of two expressions by connecting them with the equals sign

49. The boy scout showed us how to tie a \_\_\_\_\_ that wouldn't come undone.

*n.* a tight interlacing of something such as rope or thread

50. One such rapidly growing \_\_\_\_\_ is quantum cryptography.

*n.* an idea or principle associated with something abstract

51. Detectives are still attempting to \_\_\_\_\_ the mystery of his death.

*v.* undo twisted, knitted, or woven threads by separating it

52. The \_\_\_\_\_ of the tree had fallen and blocked the road.

*n.* a division of a tree or woody shrub that grows out from the trunk or a main stem; a division of some larger or more complex organization

53. The view from the mountaintop was truly \_\_\_\_\_.

*adj.* of, from, or like a god; holy or sacred

54. The marketing campaign relied heavily on \_\_\_\_\_ to sell the product.

*n.* exaggerated statements or claims not meant to be taken used to create emphasis or to make a point

ANSWERS: 47. spiritual, 48. equations, 49. knot, 50. concept, 51. unravel, 52. branch, 53. divine, 54. hyperbole

55. His relationship with her was completely \_\_\_\_\_.

*adj.* (of relationship or emotion) friendly or affectionate but not sexual

56. Having a \_\_\_\_\_ healthy physique is essential for a great life.

*adv.* in a way related to a person's body or appearance rather than their mind

57. The Nobel \_\_\_\_\_ delivered an inspiring speech to the graduating class.

*n.* a person who has been awarded an honor or a prize for achievement in a particular field, especially in literature or academia; a poet who is honored for achieving the highest level of excellence in a competition or for producing a lifetime body of work

58. The \_\_\_\_\_ of the bees filled the air as she walked through the garden.

*adj.* producing a continuous, low, vibrating sound like that of the bee

59. The garden had a complex \_\_\_\_\_ shape with many angles and corners.

*n.* a closed plane figure bounded by three or more straight sides that meet at the same number of angles (vertices)

60. A rainbow is a natural \_\_\_\_\_.

*n.* something that exists and can be perceptible, especially one that is not fully understood

61. The organizational \_\_\_\_\_ of start-ups is often flat and straightforward.

*n.* the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts

62. They have been living near water since \_\_\_\_\_ times.

*adj.* relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old

ANSWERS: 55. platonic, 56. physically, 57. laureate, 58. humming, 59. polygon, 60. phenomenon, 61. structure, 62. ancient

63. These articles cite five \_\_\_\_\_ of climate change.  
*n.* a particular example or single occurrence of something
64. The industrial \_\_\_\_\_ laws were passed with little to no alteration.  
*n.* the way two persons or groups of people feel and act toward one another
65. The \_\_\_\_\_ of the earth can be seen from space.  
*n.* the degree to which a line or surface deviates from being straight or flat; a measure of the amount of bending of a curve
66. She had lived through two world wars in her \_\_\_\_\_.  
*n.* the duration of someone's life or something's existence;
67. The mathematician pioneered fractal \_\_\_\_\_.  
*n.* the area of pure mathematics that deals with the points, lines, curves, and surfaces
68. A person who has been declared incompetent should have legal \_\_\_\_\_.  
*n.* the act of speaking, acting, or being present on behalf of someone officially; a statement of facts and reasons made in appealing or protesting
69. Most countries prohibit sexual activity between certain close \_\_\_\_\_.  
*adj.* considered and evaluated through comparison with something else
70. I love to eat fresh \_\_\_\_\_ in my fruit salad.  
*n.* tropical fruit with a rough, spiky exterior and sweet, juicy flesh inside, often used in cooking, baking, or as a snack

ANSWERS: 63. instances, 64. relations, 65. curvature, 66. lifetime, 67. geometry, 68. representation, 69. relatives, 70. pineapple

71. Absolute zero is the lowest \_\_\_\_\_ temperature.

*adj.* relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience

72. This town \_\_\_\_\_ a national park.

*v.* to talk about someone's accomplishments, wealth, or abilities excessively with undue pride and self-satisfaction

73. A company is a distinct legal \_\_\_\_\_.

*n.* something that exists independently and has its own identity

74. The \_\_\_\_\_ construction workers worked tirelessly in the scorching heat to complete the project.

*adj.* able to withstand harsh conditions or difficult circumstances; robust, sturdy, or resilient

75. He has terminal \_\_\_\_\_ cancer.

*n.* either of the two organs in the chest that people and some animals use for breathing

76. We do move forward with those tasks in \_\_\_\_\_ next week.

*n.* a series of related events, actions, numbers, etc., which have a particular order

77. Her research team made an important \_\_\_\_\_.

*n.* the act or process of finding information, a place, or an object, or learning about something that was previously not known

78. The couple began to \_\_\_\_\_ over which restaurant to go to for dinner.

*v.* to express differing opinions or points of view, often in a heated or contentious manner; to present a case or reasoning to persuade or convince others

ANSWERS: 71. theoretical, 72. boasts, 73. entity, 74. hardy, 75. lung, 76. sequence, 77. discovery, 78. argue

79. It would be \_\_\_\_\_ for me to expect you to work overtime without any extra compensation.  
*adj.* not fair, sensible, or likely to be true
80. We must \_\_\_\_\_ a new system to streamline our workflow and increase efficiency.  
*v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created
81. My left arm became \_\_\_\_\_.  
*adj.* unable to feel physical sensation and movement; not showing human feeling or sensitivity
82. The botany field is concerned with studying the structure of plant \_\_\_\_\_.  
*n.* one of the separate, usually colored, segments of a flower that produce its shape and are often found arranged in a circle around the reproductive parts
83. They each choose \_\_\_\_\_ to battle.  
*adv.* in spite of what has just been said or done; nevertheless
84. Ethics is a branch of \_\_\_\_\_.  
*n.* the study of general and fundamental questions, such as those about existence, reason, knowledge, values, mind
85. Efficiency isn't an essential \_\_\_\_\_ here; fairness is.  
*n.* a fundamental law or truth that explains or controls how something happens or works
86. The \_\_\_\_\_ for applying for a visa can be lengthy and complicated.  
*n.* a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products

ANSWERS: 79. unreasonable, 80. develop, 81. numb, 82. petals, 83. nonetheless,

84. philosophy, 85. principle, 86. process



ANSWERS: