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Vocabulary Builder Reference from...

Yannay Khaikin: How many ways can you arrange a deck of cards? | TED Talk

https://www.ted.com/talks/yannay_khaikin_how_many_ways_can_you_arrange_a_deck_of_cards

All Words

IMPORTANT

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Session 1: Word List

deck

n. a flat surface that is usually made of wood or other material and is attached to a building, vehicle, or other structure

synonym : platform, veranda, patio

(1) **deck** chairs, (2) hands on **deck**

She sat on the ship's **deck**, watching the sunset over the ocean.

shuffle

v. to move or mix around in a casual or unorganized way; to walk with short, dragging steps

synonym : jumble, muddle, rearrange

(1) **shuffle** deck, (2) **shuffle** from side to side

She **shuffled** the cards before dealing them to the players.

casino

n. a business or establishment that provides gambling services, such as slot machines, table games, or sports betting; a facility or venue that hosts events or entertainment, often featuring dining or recreational amenities

synonym : gambling house, gaming establishment, resort casino

(1) **casino** floor, (2) **casino** games

I won \$100 at the **casino** last night playing blackjack.

rearrange

v. to change the order or position of things already made; to change the time, date, or place of an event already planned

synonym : readjust, reorganize, reconstruct

(1) **rearrange** the furniture, (2) **rearrange** his schedule

Please **rearrange** these files as we start a new project tomorrow.

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.

candidate

n. a person who is seeking or being considered for some kind of position, title, honor, or award; a job applicant

synonym : applicant, nominee, contender

(1) **candidate** selection, (2) PhD **candidate**

The **candidate's** platform focused on healthcare reform and reducing income inequality.

permutation

n. the act or process of rearranging or reordering a set of elements or objects in a different sequence or configuration; a specific arrangement or order of a set of elements or objects

synonym : variation, transformation, alteration

(1) **permutation** formula, (2) **permutation** test

Scientists study the **permutations** of chemical elements and compounds to better understand their properties and potential uses.

initial

adj. of or happening at the beginning; (noun) the first letter of a word, especially a person's name

synonym : basic, primary, beginning

(1) **initial** velocity, (2) an **initial** letter

They took the **initial** step toward reconciliation.

scenario

n. a description of possible actions or events in the future;
a written outline of a play, film, or literary work

synonym: plan, scheme, procedure

(1) the worst case **scenario**, (2) number of different **scenarios**

The president prepared several possible **scenarios** for an enemy attack.

individually

adv. separately or apart from others

synonym: separately, one by one, independently

(1) answer questions **individually**, (2) **individually** designed product

Each department has done its product costing **individually**.

multiply

v. to add a number to itself a specified number of times; to increase or cause to increase very much in number or quantity

synonym: boost, amplify, reproduce

(1) **multiply** 5 and 6, (2) **multiply** about hundredfold
Multiply a number by itself twice.

achieve

v. to successfully complete a task or goal, often through hard work, perseverance, and dedication; to attain or accomplish something that one has set out to do

synonym: accomplish, attain, reach

(1) **achieve** success, (2) **achieve** milestones

I will work hard to **achieve** my goals and realize my dreams.

emerge

v. to move out of or away from something and become visible

synonym: arise, occur, appear

(1) **emerge** as a butterfly, (2) **emerge** from poverty

During colonial eras, new migratory patterns **emerged**.

arrange

v. to plan, prepare for, and carry out something

synonym: set up, order, organize

(1) **arrange** the meeting, (2) the list was **arranged** alphabetically

I need to **arrange** plans with him for the celebration.

consecutive

adj. following in a sequence or order without interruption or break; occurring one after another

synonym: successive, sequential, uninterrupted

(1) **consecutive** holidays, (2) suffer **consecutive** defeats

The athlete won three **consecutive** championships in her sport.

integer

n. a whole number, either positive, negative, or zero, that is not a fraction or decimal

synonym: whole number, real number, numeral

(1) **integer** division, (2) positive **integer**

The sum of two **integers** can be either a positive integer, a negative integer, or zero.

exciting

adj. causing a lot of interest or excitement

synonym: exhilarating, stimulating, thrilling

(1) **exciting** football player, (2) **exciting** news

The findings of the experiment were both **exciting** and unexpected.

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**.

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**.

symbolize

v. to represent or stand for something else, particularly an abstract concept or idea; to be an emblem or sign of something

synonym: represent, signify, emblemize

(1) **symbolize** hope, (2) **symbolize** freedom

In many cultures, the color white **symbolizes** purity and innocence.

calculation

n. the act or process of using numbers to judge an amount of something

synonym: analysis, computation, estimate

(1) make a **calculation**, (2) **calculation** of loss and gain

The error in the **calculation** was attributable to rounding.

exclamation

n. a sudden outcry or shout, especially one expressing strong emotion

synonym: outcry, shout, yell

(1) an **exclamation** of surprise, (2) **exclamation** mark

Her sudden **exclamation** drew everyone's attention.

calculated

adj. done with careful thought or planning; deliberate and intentional; based on a process of reasoning or estimation rather than on instinct or chance

synonym: premeditated, willful, deliberate

(1) **calculated** bankruptcy, (2) **calculated** crime

The company made a **calculated** decision to invest in new technology.

fortunate

adj. having good luck or lucky

synonym: fortuitous, lucky, blessed

(1) **fortunate** situation, (2) less **fortunate** person

He was pretty **fortunate** to pass the exam.

calculate

v. to judge or find out the amount or number of something by using mathematics

synonym: compute, figure, estimate

(1) **calculate** the distance, (2) **calculate** his credit score

He couldn't **calculate** the actual value of the artwork.

function

n. the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose

synonym: purpose, mapping, job

(1) **function** properly, (2) immune **function**

The brain is an incredibly complex organ that controls the body's **function**.

calculator

n. a small electronic device for making arithmetic calculations

synonym: computer, machine, estimator

(1) **calculator** app, (2) analog **calculator**

I left my alpha **calculator** at home, so I had to borrow one from a classmate to finish my math homework.

roughly

adv. approximately but not precisely; with a violent manner

synonym: approximately, more or less, around

(1) **roughly** explain my idea, (2) **roughly** speaking

Five miles is **roughly** similar to eight kilometers.

bang

v. to hit or cause to hit something in a way that makes a loud noise

synonym: crash, hit, smash

(1) **bang** his fist on a desk, (2) **bang** a phone down

My father tried to **bang** mathematics into my head since childhood.

atom

n. the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus

synonym : particle, element, fraction

(1) oxygen **atom**, (2) neutral hydrogen **atoms**

The outermost electron shell of an **atom** determines its chemical characteristics.

Session 2: Spelling

- | | |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 1. mat_____cs competition | <i>n.</i> the science dealing with the logic of quantities, shapes, spaces, and arrangement |
| 2. re_____ge the furniture | <i>v.</i> to change the order or position of things already made; to change the time, date, or place of an event already planned |
| 3. mu_____ly about hundredfold | <i>v.</i> to add a number to itself a specified number of times; to increase or cause to increase very much in number or quantity |
| 4. positive in_____r | <i>n.</i> a whole number, either positive, negative, or zero, that is not a fraction or decimal |
| 5. fo_____te situation | <i>adj.</i> having good luck or lucky |
| 6. number of different sc_____ios | <i>n.</i> a description of possible actions or events in the future; a written outline of a play, film, or literary work |
| 7. d__k chairs | <i>n.</i> a flat surface that is usually made of wood or other material and is attached to a building, vehicle, or other structure |
| 8. sy_____ze freedom | <i>v.</i> to represent or stand for something else, particularly an abstract concept or idea; to be an emblem or sign of something |
| 9. in_____l velocity | <i>adj.</i> of or happening at the beginning; (noun) the first letter of a word, especially a person's name |

ANSWERS: 1. mathematics, 2. rearrange, 3. multiply, 4. integer, 5. fortunate, 6. scenario, 7. deck, 8. symbolize, 9. initial

10. the worst case sc_____io *n.* a description of possible actions or events in the future; a written outline of a play, film, or literary work
11. immune fu_____on *n.* the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose
12. exc_____on mark *n.* a sudden outcry or shout, especially one expressing strong emotion
13. ac_____e milestones *v.* to successfully complete a task or goal, often through hard work, perseverance, and dedication; to attain or accomplish something that one has set out to do
14. ca___o floor *n.* a business or establishment that provides gambling services, such as slot machines, table games, or sports betting; a facility or venue that hosts events or entertainment, often featuring dining or recreational amenities
15. ar_____e the meeting *v.* to plan, prepare for, and carry out something
16. ca_____te his credit score *v.* to judge or find out the amount or number of something by using mathematics
17. sh_____e deck *v.* to move or mix around in a casual or unorganized way; to walk with short, dragging steps

ANSWERS: 10. scenario, 11. function, 12. exclamation, 13. achieve, 14. casino, 15. arrange, 16. calculate, 17. shuffle

18. b__g a phone down *v.* to hit or cause to hit something in a way that makes a loud noise
19. analog cal_____or *n.* a small electronic device for making arithmetic calculations
20. PhD ca_____te *n.* a person who is seeking or being considered for some kind of position, title, honor, or award; a job applicant
21. in_____r division *n.* a whole number, either positive, negative, or zero, that is not a fraction or decimal
22. con_____ve holidays *adj.* following in a sequence or order without interruption or break; occurring one after another
23. suffer con_____ve defeats *adj.* following in a sequence or order without interruption or break; occurring one after another
24. ro_____y explain my idea *adv.* approximately but not precisely; with a violent manner
25. per_____on test *n.* the act or process of rearranging or reordering a set of elements or objects in a different sequence or configuration; a specific arrangement or order of a set of elements or objects
26. cal_____on of loss and gain *n.* the act or process of using numbers to judge an amount of something
27. ac_____e success *v.* to successfully complete a task or goal, often through hard work, perseverance, and dedication; to attain or accomplish something that one has set out to do

ANSWERS: 18. bang, 19. calculator, 20. candidate, 21. integer, 22. consecutive, 23. consecutive, 24. roughly, 25. permutation, 26. calculation, 27. achieve

28. 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
29. the list was ar_____ed alphabetically *v.* to plan, prepare for, and carry out something
30. cal_____or app *n.* a small electronic device for making arithmetic calculations
31. ca___o games *n.* a business or establishment that provides gambling services, such as slot machines, table games, or sports betting; a facility or venue that hosts events or entertainment, often featuring dining or recreational amenities
32. ro_____y speaking *adv.* approximately but not precisely; with a violent manner
33. less fo_____te person *adj.* having good luck or lucky
34. re_____ge his schedule *v.* to change the order or position of things already made; to change the time, date, or place of an event already planned
35. cal_____ed crime *adj.* done with careful thought or planning; deliberate and intentional; based on a process of reasoning or estimation rather than on instinct or chance
36. ex_____ng news *adj.* causing a lot of interest or excitement
37. ind_____lly designed product *adv.* separately or apart from others
38. neutral hydrogen a__ms *n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus

ANSWERS: 28. discovery, 29. arrange, 30. calculator, 31. casino, 32. roughly, 33. fortunate, 34. rearrange, 35. calculated, 36. exciting, 37. individually, 38. atom

39. em___e from poverty *v.* to move out of or away from something and become visible
40. per_____on formula *n.* the act or process of rearranging or reordering a set of elements or objects in a different sequence or configuration; a specific arrangement or order of a set of elements or objects
41. b__g his fist on a desk *v.* to hit or cause to hit something in a way that makes a loud noise
42. an in_____l letter *adj.* of or happening at the beginning; (noun) the first letter of a word, especially a person's name
43. make a cal_____on *n.* the act or process of using numbers to judge an amount of something
44. ex_____ng football player *adj.* causing a lot of interest or excitement
45. a good grounding in mat_____cs *n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement
46. an exc_____on of surprise *n.* a sudden outcry or shout, especially one expressing strong emotion
47. answer questions ind_____lly *adv.* separately or apart from others
48. hands on d__k *n.* a flat surface that is usually made of wood or other material and is attached to a building, vehicle, or other structure
49. arr_____nt committee *n.* a plan or preparation for the future event; the action or process of placing things in a particular order
50. ca_____te selection *n.* a person who is seeking or being considered for some kind of position, title, honor, or award; a job applicant

ANSWERS: 39. emerge, 40. permutation, 41. bang, 42. initial, 43. calculation, 44. exciting, 45. mathematics, 46. exclamation, 47. individually, 48. deck, 49. arrangement, 50. candidate

51. sy_____ze hope *v.* to represent or stand for something else, particularly an abstract concept or idea; to be an emblem or sign of something
52. 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
53. oxygen a__m *n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
54. fu_____on properly *n.* the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose
55. cal_____ed bankruptcy *adj.* done with careful thought or planning; deliberate and intentional; based on a process of reasoning or estimation rather than on instinct or chance
56. ca_____te the distance *v.* to judge or find out the amount or number of something by using mathematics
57. mu_____ly 5 and 6 *v.* to add a number to itself a specified number of times; to increase or cause to increase very much in number or quantity

ANSWERS: 51. symbolize, 52. discovery, 53. atom, 54. function, 55. calculated, 56. calculate, 57. multiply

58. em___e as a butterfly *v.* to move out of or away from something and become visible
59. arr_____nt of the furniture *n.* a plan or preparation for the future event; the action or process of placing things in a particular order
60. sh_____e from side to side *v.* to move or mix around in a casual or unorganized way; to walk with short, dragging steps

ANSWERS: 58. emerge, 59. arrangement, 60. shuffle

Session 3: Fill in the Blanks

1. He was pretty _____ to pass the exam.
adj. having good luck or lucky
2. In many cultures, the color white _____ purity and innocence.
v. to represent or stand for something else, particularly an abstract concept or idea; to be an emblem or sign of something
3. She _____ the cards before dealing them to the players.
v. to move or mix around in a casual or unorganized way; to walk with short, dragging steps
4. The sum of two _____ can be either a positive integer, a negative integer, or zero.
n. a whole number, either positive, negative, or zero, that is not a fraction or decimal
5. I need to _____ plans with him for the celebration.
v. to plan, prepare for, and carry out something
6. Scientists study the _____ of chemical elements and compounds to better understand their properties and potential uses.
n. the act or process of rearranging or reordering a set of elements or objects in a different sequence or configuration; a specific arrangement or order of a set of elements or objects
7. I won \$100 at the _____ last night playing blackjack.
n. a business or establishment that provides gambling services, such as slot machines, table games, or sports betting; a facility or venue that hosts events or entertainment, often featuring dining or recreational amenities

ANSWERS: 1. fortunate, 2. symbolizes, 3. shuffled, 4. integers, 5. arrange, 6. permutations, 7. casino

8. He couldn't _____ the actual value of the artwork.
v. to judge or find out the amount or number of something by using mathematics
9. 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
10. _____ a number by itself twice.
v. to add a number to itself a specified number of times; to increase or cause to increase very much in number or quantity
11. The athlete won three _____ championships in her sport.
adj. following in a sequence or order without interruption or break; occurring one after another
12. The company made a _____ decision to invest in new technology.
adj. done with careful thought or planning; deliberate and intentional; based on a process of reasoning or estimation rather than on instinct or chance
13. The brain is an incredibly complex organ that controls the body's _____.
n. the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose
14. My father tried to _____ mathematics into my head since childhood.
v. to hit or cause to hit something in a way that makes a loud noise
15. They took the _____ step toward reconciliation.
adj. of or happening at the beginning; (noun) the first letter of a word, especially a person's name

ANSWERS: 8. calculate, 9. arrangement, 10. Multiply, 11. consecutive, 12. calculated, 13. function, 14. bang, 15. initial

16. The findings of the experiment were both _____ and unexpected.
adj. causing a lot of interest or excitement
17. During colonial eras, new migratory patterns _____.
v. to move out of or away from something and become visible
18. The president prepared several possible _____ for an enemy attack.
n. a description of possible actions or events in the future; a written outline of a play, film, or literary work
19. I left my alpha _____ at home, so I had to borrow one from a classmate to finish my math homework.
n. a small electronic device for making arithmetic calculations
20. The error in the _____ was attributable to rounding.
n. the act or process of using numbers to judge an amount of something
21. Five miles is _____ similar to eight kilometers.
adv. approximately but not precisely; with a violent manner
22. The outermost electron shell of an _____ determines its chemical characteristics.
n. the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
23. 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
24. I will work hard to _____ my goals and realize my dreams.
v. to successfully complete a task or goal, often through hard work, perseverance, and dedication; to attain or accomplish something that one has set out to do

ANSWERS: 16. exciting, 17. emerged, 18. scenarios, 19. calculator, 20. calculation, 21. roughly, 22. atom, 23. discovery, 24. achieve

25. He has a flair for _____.

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

26. Her sudden _____ drew everyone's attention.

- n.* a sudden outcry or shout, especially one expressing strong emotion

27. She sat on the ship's _____ watching the sunset over the ocean.

- n.* a flat surface that is usually made of wood or other material and is attached to a building, vehicle, or other structure

28. The _____ platform focused on healthcare reform and reducing income inequality.

- n.* a person who is seeking or being considered for some kind of position, title, honor, or award; a job applicant

29. Please _____ these files as we start a new project tomorrow.

- v.* to change the order or position of things already made; to change the time, date, or place of an event already planned

30. Each department has done its product costing _____.

- adv.* separately or apart from others

ANSWERS: 25. mathematics, 26. exclamation, 27. deck, 28. candidate's, 29. rearrange, 30. individually