



The SESK Party Game

STUFF EVERY TECHNOLOGY EXPERT SHOULD KNOW

How to play (30 seconds)

1. The reader reads a card and its three answers out loud.
2. Everyone says "One, two, three, Goldilocks!" and holds up 1, 2, or 3 fingers.
3. The reader flips the card and reads the answer and the Why.
4. Everyone who was right takes a point.
5. The reader reads the joke with a straight face. Anyone laughs or groans? The reader takes a point. Nobody got it right? The reader takes a point.
6. Pass the deck left. Most points when the points run out wins.

What you need

These cards and the point tokens on the last two pages. No tokens? Use coins, buttons, pebbles, or marshmallows. 3 to 10 players, ages 8 and up.

Expert rule: Bet It

Before the reader flips the card, you may put one of your points on your answer. Right: take your normal point plus one extra. Wrong: your bet goes back to the pile. That's it.

Printing

Print single-sided, on cardstock if you have it. Cut on the dashed lines. Each card is a 3.5 x 5 inch index card. The answer half is upside down on purpose, so the table can't peek. Cards 1 to 50 of 165. More cards and the free daily online game at sesk.info. Built 2026-10-12.

TECH & GADGETS



How many bytes are in one kibibyte (KiB)?

- A** 1,024 bytes
- B** 1,000 bytes
- C** 8,192 bytes

FLIP FOR THE ANSWER

#3392

SESK.INFO

STRAIGHT FACE
Why did the kilobyte feel left out? It was 24 bytes short of a kibibyte party.

A 1,024 bytes
WHY The SI prefix kilo means 1,000. The binary prefix kibi (Ki) means 2 to the 10th, which is 1,024. Storage labels often use GB, while some software reports binary-sized GiB.

TECH & GADGETS



How many bits does one hexadecimal digit (0 to F) stand for?

- A** 2 bits
- B** 8 bits
- C** 4 bits

FLIP FOR THE ANSWER

#3393

SESK.INFO

STRAIGHT FACE
Why do programmers like hex? Because it is the base of all their jokes.

C 4 bits
WHY Hex has 16 symbols, and 4 bits make exactly 16 patterns. So every byte (8 bits) is written as two hex characters, like FF for 255. That neat fit is why programmers love hex.

TECH & GADGETS



Base64 encoding turns every 3 bytes of data into how many text characters?

- A** 3 characters
- B** 4 characters
- C** 6 characters

FLIP FOR THE ANSWER

#3394

SESK.INFO

STRAIGHT FACE
Base64 walked into a bar and ordered 3 drinks. The bartender handed over 4.

B 4 characters
WHY Base64 takes 24 bits (3 bytes) at a time and splits them into four 6-bit groups. Each 6-bit group becomes one of 64 printable characters. Four out for every three in means about 33% growth.

TECH & GADGETS



How many different values can 8 bits represent?

- A** 256
- B** 255
- C** 128

FLIP FOR THE ANSWER

#3395

SESK.INFO

STRAIGHT FACE
There are 10 types of people in the world: those who understand binary and those who don't.

A 256
WHY Each extra bit doubles the number of patterns, so n bits give 2 to the n values. Eight bits give 256 patterns, which as an unsigned number means 0 to 255. People often pick 255 because they forget zero counts too.

TECH & GADGETS



How do nearly all computers store negative whole numbers in binary?

- A** A sign bit plus the size
- B** Two's complement
- C** One's complement

FLIP FOR THE ANSWER

#3396

SESK.INFO

STRAIGHT FACE Why was the negative number so nice? It always paid two's complements.

B **Two's complement** **WHY** Two's complement has only one zero, and the same adder circuit handles both addition and subtraction. Just using a sign bit wastes a pattern on minus zero. So two's complement became the standard.

TECH & GADGETS



What is the range of an 8-bit signed (two's complement) integer?

- A** -127 to 127
- B** -128 to 127
- C** -128 to 128

FLIP FOR THE ANSWER

#3397

SESK.INFO

STRAIGHT FACE Why did 127 refuse to add one more? It knew it would end up deeply negative.

B **-128 to 127** **WHY** With n bits the range is minus 2 to the (n-1) up to 2 to the (n-1) minus 1. For 8 bits that is -128 to 127. Zero takes one of the non-negative slots, so the positive side is one short.

TECH & GADGETS



How many bits does standard ASCII use for each character?

- A** 7 bits
- B** 8 bits
- C** 16 bits

FLIP FOR THE ANSWER

#3398

SESK.INFO

STRAIGHT FACE Why did the ASCII character go to therapy? It had too many control issues.

A **7 bits** **WHY** ASCII is a 7-bit code, so it has 128 codes covering English letters, digits, punctuation and control codes. It is usually stored in an 8-bit byte with the top bit set to 0.

TECH & GADGETS



In UTF-8, how many bytes can one Unicode scalar value take?

- A** Always 2 bytes
- B** 1 to 4 bytes
- C** Always 1 byte

FLIP FOR THE ANSWER

#3399

SESK.INFO

STRAIGHT FACE Why did the emoji need four bytes? It had a lot of feelings to express.

B **1 to 4 bytes** **WHY** UTF-8 is variable length. Common English letters take 1 byte, many other scalar values take 2 or 3, and values above U+FFFF take 4. One displayed symbol can combine several scalar values.

TECH & GADGETS



A plain ASCII text file is read as UTF-8. What happens?

- A** It reads perfectly
- B** Every character turns to gibberish
- C** It must be converted first

FLIP FOR THE ANSWER

#3400

SESK.INFO

STRAIGHT FACE
Why did ASCII feel at home in UTF-8? Because nothing about it had to change.

A It reads perfectly
WHY UTF-8 keeps the exact one-byte values of all 128 ASCII characters. Therefore, every valid ASCII byte sequence is also valid UTF-8 and needs no conversion.

TECH & GADGETS



What is the highest code point Unicode allows?

- A** U+FFFF
- B** U+10FFFF
- C** U+FFFFFFFF

FLIP FOR THE ANSWER

#3401

SESK.INFO

STRAIGHT FACE
Why did Unicode stop at U+10FFFF? It ran out of room on its plane.

B U+10FFFF
WHY Unicode tops out at U+10FFFF so UTF-16 can reach every scalar value. U+FFFF is only the end of the first plane, and many emoji lie above it.

TECH & GADGETS



Which Unicode character is used as the byte order mark (BOM) at the start of some text files?

- A** U+0000, the null character
- B** U+000A, the line feed
- C** U+FEFF, zero width no-break space

FLIP FOR THE ANSWER

#3402

SESK.INFO

STRAIGHT FACE
Why was the byte order mark invisible? It didn't want to make a scene at the start of the file.

C U+FEFF, zero width no-break space
WHY U+FEFF is invisible, so placing it first lets software detect the byte order of UTF-16 text. In UTF-8 it shows up as the three bytes EF BB BF and is usually not needed, since UTF-8 has no byte order.

TECH & GADGETS



Why does Python report $0.1 + 0.2 == 0.3$ as false?

- A** A bug in the processor
- B** The language rounds to 2 places
- C** 0.1 cannot be stored exactly in binary

FLIP FOR THE ANSWER

#3403

SESK.INFO

STRAIGHT FACE
Why did 0.1 and 0.2 break up? They just didn't add up.

C 0.1 cannot be stored exactly in binary
WHY Computers store floats as binary fractions. Just like 1/3 never ends in decimal, 1/10 never ends in binary. The tiny rounding errors in 0.1 and 0.2 add up, so the sum is 0.30000000000000004.

TECH & GADGETS



How many bits of precision does a standard 64-bit double (IEEE 754 binary64) number have?

- A** 64 bits
- B** 53 bits
- C** 32 bits

FLIP FOR THE ANSWER

#3404

SESK.INFO

STRAIGHT FACE Why did the double get kicked out of the precision club? It only had 53 of 64 members show up.

B 53 bits **WHY** A 64-bit double splits its bits between a sign, an exponent and the fraction. The fraction plus a hidden leading 1 gives 53 bits of precision. The other bits set the size, not the precision.

TECH & GADGETS



When small rounding errors are acceptable, how should two floating point results be compared?

- A** Check they are within a small tolerance
- B** Truncate both values to whole numbers
- C** Use == like whole numbers

FLIP FOR THE ANSWER

#3405

SESK.INFO

STRAIGHT FACE Two floats walked into a bar. The bartender said, close enough.

A **Check they are within a small tolerance** **WHY** Binary floating point carries rounding errors, so exact equality can fail for intended matches. A relative or absolute tolerance, such as Python's `math.isclose()`, tests whether the difference is acceptable for the task.

TECH & GADGETS



Moore's law says the number of transistors on a chip doubles about how often?

- A** Every six months
- B** Every year
- C** About every two years

FLIP FOR THE ANSWER

#3406

SESK.INFO

STRAIGHT FACE Why did the transistor double down? Moore's law told it to.

C **About every two years** **WHY** Moore's law is about transistor count, not clock speed. Gordon Moore first predicted yearly doubling in 1965, then revised it to every two years in 1975. It is an observation about industry trends, not a law of physics.

TECH & GADGETS



Around 2004, why did chipmakers shift from faster clocks toward multicore processors?

- A** Higher clocks used far too much power
- B** Software could not use speeds above 3 GHz
- C** Transistors stopped shrinking completely

FLIP FOR THE ANSWER

#3407

SESK.INFO

STRAIGHT FACE Why did the CPU get more cores? It wanted to multitask without breaking a sweat.

A **Higher clocks used far too much power** **WHY** Dennard scaling meant smaller transistors used less power, so clocks could rise freely. When it ended around 2004, faster clocks meant much more power and heat. Designers put several slower cores on one chip instead.

TECH & GADGETS



With Intel Hyper-Threading on, how does one physical core appear to the operating system?

- A** As half a processor
- B** As two logical processors
- C** As four logical processors

FLIP FOR THE ANSWER

#3408

SESK.INFO

STRAIGHT FACE Why did the core start Hyper-Threading? It wanted to be in two places at once.

B As two logical processors **WHY** Hyper-Threading is Intel's name for simultaneous multithreading. Each physical core exposes two execution contexts and can work on two software threads. Two logical processors still share one core's execution resources.

TECH & GADGETS



A phone chip mixes fast, power-hungry cores with slow, efficient ones. What is that design called?

- A** Homogeneous
- B** Superscalar
- C** Heterogeneous

FLIP FOR THE ANSWER

#3409

SESK.INFO

STRAIGHT FACE Why did the efficient core get the night shift? It never runs out of energy.

C Heterogeneous **WHY** If all cores are copies of each other, the design is homogeneous. Mixing fast and efficient cores is heterogeneous. The phone runs light tasks on the efficient cores to save battery and wakes the fast ones for heavy work.

TECH & GADGETS



Compared with a CPU, what does a GPU spend more of its transistors on?

- A** Data processing units
- B** Large caches
- C** Branch prediction and control

FLIP FOR THE ANSWER

#3410

SESK.INFO

STRAIGHT FACE Why did the GPU never feel lonely? It always had thousands of threads to talk to.

A Data processing units **WHY** A CPU runs a few threads as fast as possible, so it needs big caches and smart control. A GPU trades single-thread speed for many simple math units, great for doing the same math on lots of data.

TECH & GADGETS



Why does DRAM, the main memory in a computer, need to be refreshed every few milliseconds?

- A** To clear out old programs
- B** To cool the memory chips
- C** Its capacitors slowly lose their charge

FLIP FOR THE ANSWER

#3411

SESK.INFO

STRAIGHT FACE Why did the DRAM need a nap every few milliseconds? It kept losing its charge.

C Its capacitors slowly lose their charge **WHY** DRAM stores each bit as charge on a tiny capacitor. The charge leaks away, so built-in circuits recharge every cell every few milliseconds. That constant refresh is the dynamic in dynamic RAM.

TECH & GADGETS



CPU cache is built from SRAM. Why isn't all of a computer's memory SRAM?

- A** SRAM loses data faster
- B** SRAM is slower than DRAM
- C** Each SRAM bit uses 4 to 6 transistors

FLIP FOR THE ANSWER

#3412

SESK.INFO

STRAIGHT FACE Why is SRAM so expensive? It needs a whole team of transistors for every single bit.

C Each SRAM bit uses 4 to 6 transistors
WHY SRAM is fast and needs no refresh, but each bit needs four to six transistors. A common DRAM cell uses one transistor and one capacitor, so DRAM packs far more bits into the same chip area.

TECH & GADGETS



On a cache miss, how much data does a typical modern CPU cache pull in from memory?

- A** Exactly the bytes requested
- B** A 64-byte block
- C** A whole 4 MB page

FLIP FOR THE ANSWER

#3413

SESK.INFO

STRAIGHT FACE Why did the cache bring 64 bytes when asked for 4? It's a dad. It always packs snacks for later.

B A 64-byte block
WHY Caches move data in blocks called cache lines, commonly 64 bytes. A 64-byte line can hold sixteen 4-byte integers, so sequential reads often reuse data already fetched into cache.

TECH & GADGETS



In a CPU with L1, L2 and L3 caches, which level is smallest and fastest?

- A** L3
- B** L2
- C** L1

FLIP FOR THE ANSWER

#3414

SESK.INFO

STRAIGHT FACE Why is L1 cache always first in line? It's the closest friend the CPU has.

C L1
WHY A small cache can be very fast, but it misses more often. So chips stack levels: a tiny, quick L1, then a bigger L2, then a larger L3. A miss in one level checks the next before going out to slow main memory.

TECH & GADGETS



A loop reuses the same few variables thousands of times. Which kind of locality is that?

- A** Temporal locality
- B** Spatial locality
- C** Sequential locality

FLIP FOR THE ANSWER

#3415

SESK.INFO

STRAIGHT FACE Why does temporal locality love reruns? It always wants to see the same thing again.

A Temporal locality
WHY Temporal locality means using the same data again soon, so it is still in cache. Spatial locality means using data stored next to what you just used, like walking through an array. Code with good locality gets far more cache hits.

TECH & GADGETS



Which of these loses its contents when the computer loses power?

- A** The SSD
- B** The hard drive
- C** RAM and cache

FLIP FOR THE ANSWER

#3416

SESK.INFO

STRAIGHT FACE
Why did the RAM forget everything after the blackout? It was a little volatile.

C RAM and cache
WHY Both SRAM cache and DRAM main memory are volatile: no power, no data. SSDs and hard drives are non-volatile storage that keeps data with power off. That is why unsaved work disappears in a power cut.

TECH & GADGETS



Flash memory cells wear out after many writes. How does an SSD stretch its life?

- A** It spreads writes evenly across all cells
- B** It writes everything twice
- C** It reserves one fixed cell for every address

FLIP FOR THE ANSWER

#3417

SESK.INFO

STRAIGHT FACE
Why are SSDs so fair? They never let one cell do all the work.

A It spreads writes evenly across all cells
WHY Flash cells tolerate only a limited number of program and erase cycles. The SSD's translation layer remaps logical addresses so writes are distributed across cells instead of wearing out one location early.

TECH & GADGETS



Why isn't overwriting a file with zeros a reliable way to erase it from an SSD?

- A** NAND flash cannot store zero bits
- B** TRIM changes written zeros back to old data
- C** Old copies can remain in unmapped flash

FLIP FOR THE ANSWER

#3418

SESK.INFO

STRAIGHT FACE
Why can't SSDs keep secrets? They never really let go of the past.

C Old copies can remain in unmapped flash
WHY An SSD maps logical addresses onto changing physical flash pages. An ordinary rewrite need not reach every physical page that held the old data. NIST recommends media-specific sanitize methods that bypass normal read and write abstractions.

TECH & GADGETS



What is the main reason a hard disk drive is so much slower than RAM or an SSD?

- A** Its interface limits every random access
- B** Magnetic data must be decompressed first
- C** Mechanical movement

FLIP FOR THE ANSWER

#3419

SESK.INFO

STRAIGHT FACE
Why was the hard drive always late? It kept going around in circles.

C Mechanical movement
WHY An HDD stores data on rotating platters, and a head must swing to the right track and wait for the right spot to spin past. That mechanical delay makes it orders of magnitude slower than RAM. SSDs have no moving parts at all.

TECH & GADGETS



What is the operating system kernel?

- A** The core program that is always running
- B** The graphical desktop and icons
- C** The first app you install

FLIP FOR THE ANSWER

#3420

SESK.INFO

STRAIGHT FACE
Why did the kernel never take a vacation? Someone has to keep the system popping.

A **WHY** The core program that is always running
The kernel loads at boot and stays running the whole time. It manages memory, schedules processes, and talks to hardware through drivers. Apps ask the kernel for these services instead of touching hardware directly.

TECH & GADGETS



On Windows, what happens if a kernel-mode driver crashes?

- A** Only that device stops
- B** The whole operating system crashes
- C** Windows restarts the driver quietly

FLIP FOR THE ANSWER

#3421

SESK.INFO

STRAIGHT FACE
Why did the driver turn the whole screen blue? It forgot to stay in its lane.

B **WHY** The whole operating system crashes
User-mode apps each get a private address space, so one crash stays contained. All kernel-mode code shares one address space with the OS itself. A bad kernel driver can take down everything, which is why buggy drivers cause blue screens.

TECH & GADGETS



Threads inside the same process share most things. What does each thread get its own copy of?

- A** Its own heap
- B** Its own stack
- C** Its own process ID

FLIP FOR THE ANSWER

#3422

SESK.INFO

STRAIGHT FACE
Why did the two threads fight? They both wanted the last cookie in the shared heap.

B **WHY** Its own stack
Threads in one process share the same global data and heap, which makes sharing fast but risky. Each thread has its own stack for local variables and function calls. Separate processes, by contrast, do not share memory by default.

TECH & GADGETS



What does a CPU's TLB (translation lookaside buffer) store?

- A** Recent virtual to physical address translations
- B** Recently opened files
- C** Recent network packets

FLIP FOR THE ANSWER

#3423

SESK.INFO

STRAIGHT FACE
Why is the TLB so good at directions? It remembers every address it just looked up.

A **WHY** Recent virtual to physical address translations
Every memory access with virtual memory needs an address translation, which normally means reading page tables in memory. The TLB is a small cache of recent translations. A TLB hit skips those extra trips to main memory.

TECH & GADGETS



With virtual memory, what data structures map virtual addresses to physical RAM addresses?

- A** The hard drive's file table
- B** Page tables
- C** The program's compiler

FLIP FOR THE ANSWER

#3424

SESK.INFO

STRAIGHT FACE
Why did the program trust virtual memory? It always had the address it needed.

B Page tables
WHY Memory is split into fixed-size pages. The kernel keeps page tables that map each virtual page a program uses to a physical page frame. The CPU uses them on every access, which also keeps processes apart.

TECH & GADGETS



On a Linux ext4 file system, where is a file's name stored?

- A** In the file's inode
- B** In the directory entry
- C** In the first block of the file

FLIP FOR THE ANSWER

#3425

SESK.INFO

STRAIGHT FACE
Why did the inode have an identity crisis? It knew everything about the file except its name.

B In the directory entry
WHY An inode holds a file's metadata, like size, owner, time stamps and where its blocks are. The name lives in the directory, which maps names to inode numbers. That is how one file can have several names through hard links.

TECH & GADGETS



Why won't a 6 GB video file copy to a USB stick formatted as FAT32?

- A** The stick is too slow
- B** FAT32 caps single files at 4 GiB
- C** The stick must be defragmented first

FLIP FOR THE ANSWER

#3426

SESK.INFO

STRAIGHT FACE
Why did the movie get rejected by the FAT32 drive? It was just too big for its britches.

B FAT32 caps single files at 4 GiB
WHY FAT32 stores file sizes in 32 bits, so no single file can reach 4 GiB. The stick may have plenty of free space and still refuse. Reformatting as exFAT or NTFS removes the limit.

TECH & GADGETS



How many partition entries does a classic MBR partition table hold?

- A** Four
- B** Sixteen
- C** 128

FLIP FOR THE ANSWER

#3427

SESK.INFO

STRAIGHT FACE
Why was the MBR so stressed? It only had four slots and everyone wanted one.

A Four
WHY The Master Boot Record has room for only four partition table entries. To get more, one entry becomes an extended partition holding logical drives. The newer GPT scheme drops that limit, and Windows allows 128 GPT partitions.

TECH & GADGETS



With UEFI Secure Boot turned on, what does the firmware check before running boot software?

- A** Its digital signature
- B** Its file size
- C** How recently it was updated

FLIP FOR THE ANSWER

#3428

SESK.INFO

STRAIGHT FACE
Why did Secure Boot stop the bootloader? It forgot to sign the guest book.

WHY Secure Boot checks each boot component's signature against firmware trust and revocation databases. Trusted software can run, while untrusted or revoked software is blocked. This helps stop malware from loading before the operating system.

A Its digital signature

TECH & GADGETS



When a computer starts, what is the boot loader's job?

- A** Check the internet connection
- B** Install updates
- C** Load the kernel and hand over control

FLIP FOR THE ANSWER

#3429

SESK.INFO

STRAIGHT FACE
Why did the boot loader get a medal? It always gets the kernel off to a good start.

WHY After the firmware runs, the boot loader (like GRUB on Linux) finds the kernel, loads it into memory and jumps to it. The kernel then starts the rest of the operating system.

C Load the kernel and hand over control

TECH & GADGETS



What makes a bare metal (type 1) hypervisor different from a hosted one?

- A** It runs directly on hardware
- B** It runs only one virtual machine
- C** It needs a host OS

FLIP FOR THE ANSWER

#3430

SESK.INFO

STRAIGHT FACE
Why did the hypervisor go bare metal? It didn't want anyone hosting it.

WHY A hosted hypervisor runs on top of a host operating system. A bare metal hypervisor instead runs directly on the hardware without a host OS beneath it.

A It runs directly on hardware

TECH & GADGETS



Several containers run on one Linux host. What do they all share?

- A** One app
- B** Nothing at all
- C** The host's kernel

FLIP FOR THE ANSWER

#3431

SESK.INFO

STRAIGHT FACE
Why did the containers get along so well? They all shared the same kernel of truth.

WHY A virtual machine includes a guest operating system with its own kernel. A container is an isolated process with needed files, but it uses the host's kernel. Avoiding a separate guest OS reduces overhead.

C The host's kernel

TECH & GADGETS



A C program is spread over several source files. Which tool joins the object files into one executable?

- A** The compiler
- B** The assembler
- C** The linker

FLIP FOR THE ANSWER

#3432

SESK.INFO

STRAIGHT FACE
Why did the object files call the linker? They wanted to get it all together.

C The linker
WHY In the usual pipeline, a compiler produces assembly and an assembler produces object files. The linker resolves references among those object files and needed libraries, then combines them into an executable.

TECH & GADGETS



Before execution, what does CPython compile source code into?

- A** Runs each text line directly
- B** Compiles it straight to machine code
- C** Compiles it to bytecode

FLIP FOR THE ANSWER

#3433

SESK.INFO

STRAIGHT FACE
Why did the Python file feel faster the second time? It already had its .pyc ready.

C Compiles it to bytecode
WHY CPython compiles source code into bytecode, an internal set of instructions. Its virtual machine executes that bytecode. Cached .pyc files can let later executions skip recompilation when the source is unchanged.

TECH & GADGETS



What does the Java Virtual Machine actually run?

- A** Bytecode in class files
- B** Java source code
- C** Native code for each CPU

FLIP FOR THE ANSWER

#3434

SESK.INFO

STRAIGHT FACE
Why do Java developers wear glasses? Because they don't C#.

A Bytecode in class files
WHY Java source is compiled into class files containing JVM bytecode. The JVM knows nothing about the Java language itself, only that binary format. That is why other languages like Kotlin can run on the JVM too.

TECH & GADGETS



ARM processors in phones use what kind of instruction set design?

- A** CISC, complex instructions
- B** RISC, reduced instructions
- C** Stack-based virtual instructions

FLIP FOR THE ANSWER

#3435

SESK.INFO

STRAIGHT FACE
Why did the ARM chip win the race? It took the RISC.

B RISC, reduced instructions
WHY Arm identifies ARM as an instruction-set family based on reduced instruction set architecture. RISC favors simpler instructions and decoding than CISC, helping deliver strong performance per watt in battery-powered devices.

TECH & GADGETS



How does IP treat separate datagrams?

- A** As independent units
- B** As one guaranteed stream
- C** As synchronized database rows

FLIP FOR THE ANSWER

#3436

SESK.INFO

STRAIGHT FACE
Why did the packet travel alone? It was independently routed.

A As independent units
WHY IP forwards each datagram on its own. The protocol does not require one packet's handling to depend on an earlier packet, so higher layers handle ordering and reliability when needed.

TECH & GADGETS



Which sequence matches the Internet protocol suite from top to bottom?

- A** Presentation, session, network, physical
- B** Application, transport, internet, link
- C** Application, network, session, hardware

FLIP FOR THE ANSWER

#3437

SESK.INFO

STRAIGHT FACE
Why do network layers cooperate? They stack up well together.

B Application, transport, internet, link
WHY The TCP/IP architecture groups communication into four conceptual layers. Each layer offers services to the layer above and relies on the one below.

TECH & GADGETS



How many layers are in the OSI reference model?

- A** Four
- B** Five
- C** Seven

FLIP FOR THE ANSWER

#3438

SESK.INFO

STRAIGHT FACE
The OSI model has layers, but it never needs frosting.

C Seven
WHY OSI divides network communication tasks among seven layers, from physical through application. The model gives engineers a shared vocabulary for locating functions and problems.

TECH & GADGETS



How many bits long is an IPv4 address?

- A** 32 bits
- B** 48 bits
- C** 128 bits

FLIP FOR THE ANSWER

#3439

SESK.INFO

STRAIGHT FACE
IPv4 counted to 32 bits and called it an address.

A 32 bits
WHY IPv4 uses four octets, and each octet contains eight bits. Multiplying four by eight gives a 32-bit address.

TECH & GADGETS



What did IANA's final recovered-pool IPv4 allocation mean?

- A** IPv4 stopped routing worldwide
- B** IANA's allocatable space was effectively exhausted
- C** Every device lost its address

FLIP FOR THE ANSWER

#3440

SESK.INFO

STRAIGHT FACE
IPv4 ran out of room because every address was occupied.

B IANA's allocatable space was effectively exhausted
WHY IANA made its final allocations from a pool of recovered IPv4 addresses in 2019. Exhaustion at IANA did not switch off IPv4, but it ended that central pool of fresh allocations.

TECH & GADGETS



Which IPv4 block is reserved for private internets?

- A** 10.0.0.0/8
- B** 8.0.0.0/8
- C** 100.0.0.0/8

FLIP FOR THE ANSWER

#3441

SESK.INFO

STRAIGHT FACE
A private IP keeps its address off the public guest list

A 10.0.0.0/8
WHY RFC 1918 reserves 10.0.0.0 through 10.255.255.255 for private networks. Different organizations may reuse those addresses internally because they are not globally unique.



