The AhaBulb Party Game

STUFF EVERY GENERAL CLASS HAM 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 100. More cards and the free daily online game at sesk.info. Built 2026-10-14.

HAM RADIO

On which of these bands is voice (phone) operation prohibited?

A 160 meters
B 30 meters
C 12 meters

FLIP FOR THE ANSWER

B 30 meters

WHY The 30 meter band (around 10.1 MHz) allows only CW, RTTY and data modes. Voice and image are not allowed there, for any license class.

STRAIGHT FACE
You know you're a ham when you say "QRZ" when you answer the telephone.

SESK.INFO #4634

HAM RADIO

On which HF bands do General licensees have some off-limits portions?

A 80, 40, 20, and 15 meters
B 60, 30, 17, and 12 meters
C 160, 60, 15, and 12 meters

FLIP FOR THE ANSWER

A 80, 40, 20, and 15 meters

WHY Higher license classes keep some slices of 80, 40, 20 and 15 meters for themselves. Generals can use the rest of those bands, plus every other HF band in full.

STRAIGHT FACE
You know you're a ham when a band opening is more important than a grand opening.

SESK.INFO #4633

HAM RADIO

Which part of the 10 meter band is available for repeaters?

A The portion above 29.5 MHz
B The portion between 28.1 and 28.2 MHz
C The entire band

FLIP FOR THE ANSWER

A The portion above 29.5 MHz

WHY Repeaters on 10 meters are kept to the top end of the band, above 29.5 MHz. That keeps the lower part free for CW, digital and SSB contacts.

STRAIGHT FACE
You know you're a ham when you hike to the top of a famous mountain and, instead of enjoying the sunset, you see how many repeaters you can hit.

SESK.INFO #4636

HAM RADIO

What must hams do when the amateur service is a secondary user on a band?

A Operate only during emergencies
B Operate only during certain hours of the day
C Avoid interfering with primary users and accept their interference

FLIP FOR THE ANSWER

C Avoid interfering with primary users and accept their interference

WHY Secondary means the other service has first claim. Hams may use the band, but must not cause harmful interference to primary users and must tolerate interference from them.

STRAIGHT FACE
You know you're a ham when your top requirement for a new car is zero ignition noise.

SESK.INFO #4635

HAM RADIO

How may state and local governments regulate amateur antenna structures?

- **A** Not at all, FCC rules always win
- **B** Only if the structure is over 50 feet tall
- **C** Reasonably accommodate ham radio with minimum practical rules

FLIP FOR THE ANSWER

C Reasonably accommodate ham radio with minimum practical rules

WHY This is the PRB-1 rule. Local governments may regulate, but must reasonably accommodate amateur communications and keep the regulation to the minimum practical.

STRAIGHT FACE
You know you're a ham when you buy a home because it sits up high and has plenty of land for antennas.

SESK.INFO #4638

HAM RADIO

How tall can an antenna structure be, away from an airport, before the FAA and FCC must be notified?

- **A** 50 feet
- **B** 200 feet
- **C** 100 feet

FLIP FOR THE ANSWER

B 200 feet

WHY Part 97 sets the general limit at 200 feet (60.96 meters) above ground. Structures near or at a public use airport have extra rules.

STRAIGHT FACE
You know you're a ham when you look at a mountain range and try to figure out how to get an antenna on the highest peak.

SESK.INFO #4637

HAM RADIO

What is the power limit on 10.140 MHz (30 meters)?

- **A** 1000 watts PEP output
- **B** 200 watts PEP output
- **C** 1500 watts PEP output

FLIP FOR THE ANSWER

B 200 watts PEP output

WHY The whole 30 meter band, 10.10 to 10.15 MHz, is capped at 200 watts PEP. Most other HF bands allow up to 1,500 watts PEP.

STRAIGHT FACE
You know you're a ham when you can run all your home appliances on your station's backup battery.

SESK.INFO #4640

HAM RADIO

What is the maximum power for an amateur beacon station?

- **A** 100 watts PEP output
- **B** 10 watts PEP output
- **C** 200 watts PEP output

FLIP FOR THE ANSWER

A 100 watts PEP output

WHY A beacon sends a steady signal so others can check propagation. The rules cap its transmitter power at 100 watts, far less than the 1,500 watt amateur limit.

STRAIGHT FACE
You know you're a ham when your electric bill is bigger than your house payment.

SESK.INFO #4639

HAM RADIO

What is the maximum bandwidth for a USB signal on 60 meters?

- **A** 5.6 kHz
- **B** 3 kHz
- **C** 2.8 kHz

FLIP FOR THE ANSWER

C 2.8 kHz

WHY On 60 meters, all emissions must fit within 2.8 kHz. That is a little narrower than a typical 3 kHz voice signal.

STRAIGHT FACE
You know you're a ham when a bank clerk asks you to spell your name and you do it phonetically.

SESK.INFO #4641

HAM RADIO

How does the FCC measure the maximum power an amateur station may use?

- **A** PEP output from the transmitter
- **B** RMS output from the transmitter
- **C** PEP input to the antenna

FLIP FOR THE ANSWER

A PEP output from the transmitter

WHY The rules limit peak envelope power (PEP) at the transmitter output. They do not measure at the antenna, so feed line loss does not count against the limit.

STRAIGHT FACE
You know you're a ham when the radios in your car are worth more than your car.

SESK.INFO #4642

HAM RADIO

How long is a CSCE valid for exam element credit?

- **A** 30 days
- **B** 365 days
- **C** 180 days

FLIP FOR THE ANSWER

B 365 days

WHY A Certificate of Successful Completion of Examination (CSCE) proves you passed an exam element. You can use it for credit toward your next exam for 365 days.

STRAIGHT FACE
You know you're a ham when the only time you get up at 6 a.m. is for a hamfest.

SESK.INFO #4643

HAM RADIO

What is the minimum age to be an accredited Volunteer Examiner?

- **A** 16 years
- **B** 21 years
- **C** 18 years

FLIP FOR THE ANSWER

C 18 years

WHY Volunteer Examiners (VEs) give amateur license tests. Each one must be accredited by a Volunteer Examiner Coordinator, hold the right license class, and be at least 18.

STRAIGHT FACE
Town with 2 hams: 1 radio club. Town with 3 hams: 2 radio clubs.

SESK.INFO #4644

HAM RADIO

When must a Technician waiting on a General upgrade add AG after the call sign?

- **A** Whenever using General class frequency privileges
- **B** Whenever operating on any amateur frequency
- **C** Whenever using Technician privileges

FLIP FOR THE ANSWER

A Whenever using General class frequency privileges

WHY While your new General class status is not yet in the FCC database, add AG after your call sign whenever you operate on General-only frequencies. Technician frequencies need no extra tag.

STRAIGHT FACE
You know you're a ham when you end your phone calls with "This is (your call sign), clear."

SESK.INFO #4645

HAM RADIO

Which ITU region's frequency allocations apply to hams in North and South America?

- **A** Region 1
- **B** Region 2
- **C** Region 3

FLIP FOR THE ANSWER

B Region 2

WHY The ITU divides the world into three regions for radio allocations. The Americas are in Region 2, which is why US band edges can differ from those in Europe or Asia.

STRAIGHT FACE
You know you're a ham when your child's teacher calls to ask why your child labeled the map JA, ZL, VE, G, UA and XE.

SESK.INFO #4646

HAM RADIO

Why should you normally avoid transmitting on 14.100, 18.110, 21.150, 24.930 and 28.200 MHz?

- **A** Those frequencies are set aside for emergencies
- **B** Those frequencies carry FCC bulletins
- **C** A system of propagation beacon stations operates there

FLIP FOR THE ANSWER

C A system of propagation beacon stations operates there

WHY These are the homes of a worldwide network of propagation beacons. Hams listen to them to see which bands are open, so keeping the frequencies clear helps everyone.

STRAIGHT FACE
Why are beacons such patient teachers? They repeat the lesson until somebody hears it.

SESK.INFO #4647

HAM RADIO

Which sideband is most common for voice on 14 MHz and higher?

- **A** Upper sideband
- **B** Lower sideband
- **C** Double sideband

FLIP FOR THE ANSWER

A Upper sideband

WHY By long-standing convention, hams use upper sideband for voice on 20 meters and above. Lower sideband is the convention on 160, 75 and 40 meters.

STRAIGHT FACE
You know you're a ham when sightseeing on vacation means looking at rooftops for antennas.

SESK.INFO #4648

HAM RADIO

What minimum spacing should CW stations use to avoid interfering with neighbors?

A 5 Hz to 50 Hz

B 150 Hz to 500 Hz

C 1 kHz to 3 kHz

FLIP FOR THE ANSWER

B 150 Hz to 500 Hz

WHY A CW signal is very narrow, so stations can sit close together. Leaving 150 to 500 Hz between signals keeps neighbors from stepping on each other.

STRAIGHT FACE
You know you're a ham when you start talking to your spouse and kids in Morse code.

SESK.INFO #4652

HAM RADIO

What is the recommended way to break into a phone contact?

A Say "QRZ" several times, then your call sign

B Say "Breaker Breaker"

C Say your call sign once

FLIP FOR THE ANSWER

C Say your call sign once

WHY Between transmissions, give your call sign one time. The stations in the contact will hear you and acknowledge when they are ready.

STRAIGHT FACE
You know you're a ham when you end every sentence on the phone with "(call sign) this is (call sign), over."

SESK.INFO #4650

HAM RADIO

Who has priority access to a frequency, outside of emergencies?

A No amateur station has priority

B Nets in progress

C Contest stations

FLIP FOR THE ANSWER

A No amateur station has priority

WHY Except during emergencies, no amateur station has priority access to any frequency. Hams are expected to cooperate and share.

STRAIGHT FACE
You know you're a ham when you hear yourself saying, "I'll be right there after this QSO or net."

SESK.INFO #4651

HAM RADIO

Why do most hams use lower sideband on 160, 75 and 40 meters?

A Lower sideband is the only legal sideband there

B It is commonly accepted amateur practice

C Lower sideband is more efficient there

FLIP FOR THE ANSWER

B It is commonly accepted amateur practice

WHY Nothing in the FCC rules requires it. Using LSB on the lower bands and USB on the higher ones is simply a tradition that makes everyone's radios line up.

STRAIGHT FACE
You know you're a ham when you stay up a whole contest weekend and call that fun.

SESK.INFO #4649

HAM RADIO

How can you check that a clear-sounding frequency is not in use before calling CQ?

- **A** Listen for exactly 2 minutes
- **B** Send "QSY" on CW or announce the frequency is in use
- **C** Ask if it is in use, then give your call sign

FLIP FOR THE ANSWER

C Ask if it is in use, then give your call sign

WHY A weak station on the frequency may be inaudible to you. Sending QRL? on CW, or asking if the frequency is in use on phone, gives that station a chance to answer.

STRAIGHT FACE
You know you're a ham when you start talking to yourself in code.

SESK.INFO #4653

HAM RADIO

How often may RACES drills be routinely conducted without special authorization?

- **A** No more than 1 hour per week
- **B** No more than 1 hour per month
- **C** No more than 2 hours per week

FLIP FOR THE ANSWER

A No more than 1 hour per week

WHY RACES stations may hold routine training drills and tests up to a total of one hour per week. Longer drills need approval from state emergency planning officials.

STRAIGHT FACE
You know you're a ham when there's a blackout and the power company calls YOU to complain.

SESK.INFO #4654

HAM RADIO

What speed should you use when answering a CQ in Morse code?

- **A** The fastest you can copy, but no slower than the CQ
- **B** The fastest you can copy, but no faster than the CQ
- **C** A standard speed of 10 wpm

FLIP FOR THE ANSWER

B The fastest you can copy, but no faster than the CQ

WHY Match the other operator. Replying at or below the speed of the CQ shows you can copy them, and they can then slow down or speed up if they want.

STRAIGHT FACE
You know you're a ham when you try to figure out who did it on the TV show Inspector Morse by listening to the background music.

SESK.INFO #4655

HAM RADIO

In CW operation, what does "zero beat" mean?

- **A** Operating split to avoid interference
- **B** Sending without any errors
- **C** Matching your transmit frequency to the received signal

FLIP FOR THE ANSWER

C Matching your transmit frequency to the received signal

WHY When you tune your receiver to a signal so the tone drops to zero, your transmitter is on the same frequency. That way the other operator hears you right where they expect.

STRAIGHT FACE
You know you're a ham when you tap out HI in Morse code on your car horn to another ham.

SESK.INFO #4656

HAM RADIO

How do you aim a beam antenna for a long-path contact?

- **A** Toward the rising sun
- **B** 180 degrees from the short-path heading
- **C** Along the gray line

FLIP FOR THE ANSWER

B 180 degrees from the short-path heading

WHY Long-path means the signal travels the long way around the globe. So you point your antenna the opposite way, 180 degrees from the short-path heading.

STRAIGHT FACE
You know you're a ham when you know the latitude and longitude of your home QTH.

SESK.INFO #4658

HAM RADIO

Which prosign marks the end of a formal message in CW?

- **A** AR
- **B** SK
- **C** BK

FLIP FOR THE ANSWER

A AR

WHY In Morse code, AR means "end of message." Other prosigns have different jobs, such as SK for ending contact and BK for break.

STRAIGHT FACE
You know you're a ham when your parrot squawks, "CQ, CQ, DE Polly!"

SESK.INFO #4657

HAM RADIO

What is the most common frequency shift for RTTY on the amateur HF bands?

- **A** 170 Hz
- **B** 85 Hz
- **C** 850 Hz

FLIP FOR THE ANSWER

A 170 Hz

WHY RTTY sends two tones, called mark and space, a fixed distance apart. On amateur HF the usual spacing is 170 Hz.

STRAIGHT FACE
You know you're a ham when you have your call sign printed on your checks.

SESK.INFO #4660

HAM RADIO

What does QRP operation mean?

- **A** Remote piloted model control
- **B** Traffic relay procedure
- **C** Low-power transmit operation

FLIP FOR THE ANSWER

C Low-power transmit operation

WHY QRP means running low power. QRP fans enjoy the challenge of reaching far with a small signal.

STRAIGHT FACE
You know you're a ham when your car battery goes dead because you forgot to start the engine before a long QSO.

SESK.INFO #4659

HAM RADIO

What is good practice when answering an FT8 station calling CQ?

- **A** Always transmit on the caller's exact frequency
- **B** Pick a clear frequency in the caller's same time slot
- **C** Pick a clear frequency in the alternate time slot

FLIP FOR THE ANSWER

C **Pick a clear frequency in the alternate time slot**

WHY FT8 uses alternating time slots. If you answered in the same slot, you would be talking while the other station is also talking and could not hear its reply.

STRAIGHT FACE
You know you're a ham when you wait for the roger beep before speaking in a normal conversation.

SESK.INFO #4662

HAM RADIO

Which of these is required to operate FT8?

- **A** A vertically polarized antenna
- **B** Computer time within about 1 second
- **C** A special hardware modem

FLIP FOR THE ANSWER

B **Computer time within about 1 second**

WHY FT8 stations take turns in fixed time slots, so every clock must agree. If yours is far off, you can't decode others or be decoded.

STRAIGHT FACE
You know you're a ham when your watch is set only to UTC.

SESK.INFO #4661

HAM RADIO

What is the solar flux index?

- **A** Another name for the sunspot number
- **B** A measure of solar radiation at 10.7 centimeters
- **C** The highest useful frequency between two points

FLIP FOR THE ANSWER

B **A measure of solar radiation at 10.7 centimeters**

WHY The solar flux index measures the Sun's radio noise at a wavelength of 10.7 centimeters. Hams use it as a quick gauge of how well the higher HF bands should work.

STRAIGHT FACE
Why is the Sun so popular with hams? It always has great flux.

SESK.INFO #4664

HAM RADIO

How long does it take solar flare radiation to start affecting radio propagation on Earth?

- **A** 8 minutes
- **B** 1 to 2 hours
- **C** 28 days

FLIP FOR THE ANSWER

A **8 minutes**

WHY The ultraviolet and X-ray burst from a flare travels at the speed of light. It arrives in about 8 minutes and can quickly disrupt daytime HF signals.

STRAIGHT FACE
Why did the solar flare get a speeding ticket? It arrived in 8 minutes flat.

SESK.INFO #4663

HAM RADIO

What causes HF conditions to vary in a 26 to 28 day cycle?

- **A** Cyclic variation in Earth's radiation belts
- **B** The position of the Moon in its orbit
- **C** Rotation of the Sun's surface layers around its axis

FLIP FOR THE ANSWER

C Rotation of the Sun's surface layers around its axis

WHY The Sun spins about once every 27 days or so. Active regions rotate into and out of view of Earth, so propagation conditions can repeat on that schedule.

STRAIGHT FACE
What did the old astronomers do when they got tired of waiting for sundown? They decided to call it a day.

SESK.INFO #4665

HAM RADIO

What does the K-index measure?

- **A** The short-term stability of Earth's geomagnetic field
- **B** The relative position of sunspots
- **C** The solar radio flux at Boulder

FLIP FOR THE ANSWER

A The short-term stability of Earth's geomagnetic field

WHY A low K-index means a calm geomagnetic field, which is good for HF. A high number means a disturbed field, often meaning poorer HF conditions.

STRAIGHT FACE
You know you're a ham when the propagation forecast means more to you than the weather forecast.

SESK.INFO #4666

HAM RADIO

What does MUF stand for?

- **A** Minimum Usable Frequency for communications between two points
- **B** Maximum Usable Frequency for communications between two points
- **C** Maximum Usable Frequency during a 24-hour period

FLIP FOR THE ANSWER

B Maximum Usable Frequency for communications between two points

WHY The MUF is the highest frequency that will be refracted back to Earth for a path between two specific points. It changes with time, season and solar activity.

STRAIGHT FACE
I tried to make a joke about light waves, but it didn't have the right frequency.

SESK.INFO #4667

HAM RADIO

How far can one hop via the F2 region normally travel?

- **A** 1,200 miles
- **B** 180 miles
- **C** 2,500 miles

FLIP FOR THE ANSWER

C 2,500 miles

WHY The F2 region is the highest layer, so its single hop covers the greatest distance, about 2,500 miles along the Earth's surface.

STRAIGHT FACE
Why did the photon refuse to check a suitcase? Because it was traveling light.

SESK.INFO #4668

HAM RADIO

Which ionospheric region is closest to the Earth's surface?

- **A** The D region
- **B** The E region
- **C** The F1 region

FLIP FOR THE ANSWER

A **The D region**

WHY The D region is the lowest layer of the ionosphere. It forms in daylight and absorbs lower HF signals before they can reach the higher layers.

STRAIGHT FACE
You know you're a ham when you use your fishing rods as 20 meter verticals on camping trips.

SESK.INFO #4669

HAM RADIO

Why is long-distance work on 160, 80, 60 and 40 meters harder in the daytime?

- **A** The E region is unstable in daylight
- **B** The D region absorbs those signals in daylight
- **C** The F region absorbs those signals in daylight

FLIP FOR THE ANSWER

B **The D region absorbs those signals in daylight**

WHY Sunlight builds up the D region, and it soaks up lower HF signals. At night the D region fades away, so those bands open for long-distance contacts.

STRAIGHT FACE
You know you're a ham when your spouse yells, "Turn off that radio, it's 4 a.m. and I'm trying to sleep!"

SESK.INFO #4670

HAM RADIO

What is NVIS propagation?

- **A** Double hop propagation near the LUF
- **B** Long path HF at sunrise and sunset
- **C** Short distance MF or HF at high elevation angles

FLIP FOR THE ANSWER

C **Short distance MF or HF at high elevation angles**

WHY Near vertical incidence skywave sends signals nearly straight up so they come back down close by. It is useful for regional contacts, such as inside a state.

STRAIGHT FACE
You know you're a ham when you check into the local two meter net from your lawn tractor.

SESK.INFO #4671

HAM RADIO

What does the notch filter on many HF transceivers do?

- **A** It reduces interference from carriers in the receiver passband
- **B** It restricts transmitter voice bandwidth
- **C** It removes splatter from adjacent signals

FLIP FOR THE ANSWER

A **It reduces interference from carriers in the receiver passband**

WHY A notch filter cuts out a very narrow slice of the receive passband, such as a steady whistle from a carrier. The rest of the signal comes through.

STRAIGHT FACE
You know you're a ham when you start getting all kinds of RFI complaints from your neighbors.

SESK.INFO #4672

HAM RADIO

Why is automatic level control (ALC) used with an RF power amplifier?

- **A** To reduce harmonic radiation
- **B** To prevent excessive drive
- **C** To increase overall efficiency

FLIP FOR THE ANSWER

B To prevent excessive drive

WHY ALC limits how hard the transceiver drives the amplifier. Too much drive can distort the signal and splatter onto neighbors.

STRAIGHT FACE
You know you're a ham when you "peak your drive," "dip your plate" and "tune your load."

SESK.INFO #4673

HAM RADIO

Why do voltmeters have high input impedance?

- **A** It allows higher voltages to be measured safely
- **B** It improves the frequency response
- **C** It decreases the loading on circuits being measured

FLIP FOR THE ANSWER

C It decreases the loading on circuits being measured

WHY A voltmeter should look like a tiny load so it doesn't change the circuit it is measuring. High input impedance means it draws very little current.

STRAIGHT FACE
Why was the voltmeter so polite? It never loaded the circuit with extra demands.

SESK.INFO #4674

HAM RADIO

What might reduce RF interference to audio circuits?

- **A** A bypass capacitor
- **B** A bypass inductor
- **C** A forward-biased diode

FLIP FOR THE ANSWER

A A bypass capacitor

WHY A bypass capacitor gives unwanted RF a path to ground while letting the audio signal pass on. Small amounts of RF can otherwise get into audio circuits.

STRAIGHT FACE
You know you're a ham when you call your house "Ohm, sweet Ohm."

SESK.INFO #4675

HAM RADIO

Why shouldn't soldered joints be used in lightning protection ground connections?

- **A** Solder has too high a dielectric constant
- **B** A soldered joint will likely be destroyed by lightning heat
- **C** Solder flux prevents good conductivity

FLIP FOR THE ANSWER

B A soldered joint will likely be destroyed by lightning heat

WHY A lightning strike carries huge current and heat. Solder melts easily, so a soldered ground joint could fail exactly when you need it. Use proper clamped or bolted connections.

STRAIGHT FACE
You know you're a ham when your antennas sparkle like the Fourth of July in a lightning storm.

SESK.INFO #4676

HAM RADIO

What helps reduce RF interference caused by common-mode current on an audio cable?

- **A** Add another insulating jacket
- **B** Connect the center conductor to the shield
- **C** Place a ferrite choke on the cable

FLIP FOR THE ANSWER

C Place a ferrite choke on the cable

WHY Common-mode RF flows along the outside of the cable. A ferrite choke adds impedance to that current, so less RF gets into the audio equipment.

STRAIGHT FACE
You know you're a ham when you have more wire run than the power company does.

SESK.INFO #4677

HAM RADIO

A signal reads 20 dB over S9. How does its power compare with an S9 signal?

- **A** 100 times more powerful
- **B** 20 times more powerful
- **C** 10 times less powerful

FLIP FOR THE ANSWER

A 100 times more powerful

WHY Every 10 dB is a factor of 10 in power. So 20 dB is 10 times 10, which is 100 times the power.

STRAIGHT FACE
The best ham joke: "Your signal report is 59," followed right away by a request to send your name and location again.

SESK.INFO #4678

HAM RADIO

How much signal strength change does one S unit typically represent?

- **A** 15 dB
- **B** 6 dB
- **C** 12 dB

FLIP FOR THE ANSWER

B 6 dB

WHY A properly calibrated S meter moves 6 dB for each S unit. A 6 dB change in received signal is a power change of 4 times.

STRAIGHT FACE
You know you're a ham when you start giving out signal reports on the telephone.

SESK.INFO #4679

HAM RADIO

What is the purpose of a corona ball on an HF mobile antenna?

- **A** To increase the Q of the antenna
- **B** To reduce damage if the antenna hits an object
- **C** To reduce RF voltage discharge from the tip of the antenna

FLIP FOR THE ANSWER

C To reduce RF voltage discharge from the tip of the antenna

WHY The tip of a whip carries high RF voltage that can arc into the air. A rounded corona ball spreads out the electric field and reduces that discharge.

STRAIGHT FACE
You know you're a ham when you hear a scraping sound when driving through parking garages.

SESK.INFO #4680

HAM RADIO

In a series LC circuit, what happens to impedance when inductive and capacitive reactance are equal?

- **A** Resonance causes impedance to be very low
- **B** Resonance causes impedance to be very high
- **C** Impedance equals the geometric mean of inductance and capacitance

FLIP FOR THE ANSWER

A **Resonance causes impedance to be very low**

WHY At resonance the inductor's and capacitor's reactances are equal and opposite, so they cancel each other. Little opposition is left, so a series LC circuit passes current easily at that frequency.

STRAIGHT FACE
What does an electronic engineer make for breakfast? Ohmlettes.

SESK.INFO #4682

HAM RADIO

How does a higher sunspot number affect HF propagation?

- **A** More sunspots mean better odds on higher frequencies
- **B** A zero sunspot number means no propagation on any band
- **C** Lower sunspot numbers mean better sporadic E

FLIP FOR THE ANSWER

A **More sunspots mean better odds on higher frequencies**

WHY More sunspots mean a more active Sun and a more strongly ionized upper atmosphere. That lets higher HF bands such as 15, 12 and 10 meters bend signals back to Earth.

STRAIGHT FACE
You know you're married to a ham when his sense of well-being is tied to the sunspot cycle.

SESK.INFO #4681

1
AhaBulb POINT

1
AhaBulb POINT