



# 2025 Denver Building & Fire Codes

Adoption & Amendment Process and  
Significant Changes

LUTI Committee – May 20, 2025



**DENVER**  
COMMUNITY PLANNING  
& DEVELOPMENT

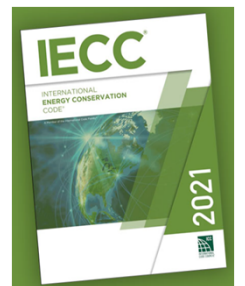


# Agenda

- I. Overview
- II. Amendment Process – Building & Fire Codes
- III. Goals of this Adoption
- IV. Timeline
- V. Significant Amendment Changes

# 2025 Code Updates - Why update now?

- Today we're presenting a proposed suite of building & fire codes that are traditionally adopted by Council and enforced by CPD & DFD on a tri-annual basis.
- These include Residential and Commercial Building, Mechanical, Plumbing, Energy, and Fire codes.
- One of the best ways to safeguard our communities is to adopt and follow current building codes:
  1. Codes Protect homes, businesses, and families
  2. Codes are Always Improving through science-based, real-world scenarios and experiences
  3. Codes Level the Playing Field by increasing efficiencies and reducing cost
  4. Codes Help Our Community:
    - Safety increases, insurance ratings improve, and premiums go down



# Goals for this Adoption Cycle

## 2024 I-Codes (except IECC):

- Adopt most current nationally developed codes
- More closely align Denver codes with I-codes
  - Significantly reduce number of amendments
  - Limited new amendments only as deemed necessary or beneficial, or to align with State requirements
- Reduced cost of adoption process
  - All work by Denver staff, no outside consultant

### 2024 Series of the I-Codes:

- International Building Code (IBC)
- International Existing Building Code (IEBC)
- International Residential Code (IRC)
- International Mechanical Code (IMC)
- International Plumbing Code (IPC)
- International Fuel Gas Code (IFGC)
- International Fire Code (IFC)

### 2021 Series of the I-Codes:

- International Energy Conservation Code (IECC)

## 2021 IECC:

- Retain current adoption of 2021 IECC, as amended
- Revise amendments as deemed necessary to address feedback we've heard from the community specific to existing buildings.
- Separate process for further energy code updates starts later in 2025



# Amendment Process – I-Codes

- *March '24:* Create committees for each I-Code
- *April-May '24:* Updates to align amendments with 2024 I-codes
- *May-Sept. '24:* **Amendment reduction effort**
- *Sept.-Oct. '24:* **Develop limited new amendments**
- *Mid-Feb.-Mid-April '25:* 60-day public review/comment period
- *April '25:* Comment review/incorporation
- *May-June '25:* City Council process and adoption
- *June-Dec. '25:* 6-month+ transition period

# Amendment Reduction Effort

## Carry Forward Criteria

1. Environmental characteristics specific to Denver
2. Customary practice specific to Denver
3. Coordinates with other agency regulations
4. Provides firefighter safety per DFD operations
5. Corrects an error that creates an unsafe condition
6. Fills a hole in the code or clarifies interpretive requirements
7. Supports climate, sustainability, or accessibility goals
8. Correlates with amendments in other codes or sections
9. Other (must provide a detailed justification)



# Amendment Reduction Effort - Example

Code Adoption Lite Step 4 - Amendment Reduction													
	Carry Forward Criteria ("X" if applicable)										Committee Vote		
	Environmental characteristics specific to Denver	Customary practice specific to Denver	Coordinates with other agency regulations (consider deleting if enforced by other agency)	Provides fire fighter safety per DFD operations	Corrects an error that creates a potentially unsafe condition	Fills a hole in the code or provides clarification of a code section that is interpretive	Supports Denver's climate, sustainability or accessibility goals	Correlates with amendments in other codes or ADMIN section (e.g., section references)	Other (must provide detailed justification) Add "Other" criteria in committee comments section	No. of votes for deletion	No. of votes against deletion	Committee Recommendation (DEL = delete, CF = carry forward)	
1010.2.6 Stairway doors		x						x		6	1	DEL	
1010.2.10 Door hardware release of electrically locked egress doors		x			x					6	1	DEL	
1010.2.11 Sensor release of electrically locked egress doors		x			x					6	1	DEL	
1010.2.16 Secured elevator lobby										4	1	DEL	
SECTION 1011 STAIRWAYS													
1011.12 Stairway to roof	x	x		x						0	7	CF	
1011.12.2 Roof access	x	x		x						0	7	CF	
1011.12.3 Roof hatches		x		x						0	7	CF	
SECTION 1013 EXIT SIGNS													
1013.3 Illumination		x								7	0	DEL	
1013.5 Internally illuminated exit signs		x								7	0	DEL	
1013.5.1 Graphics		x								7	0	DEL	
1013.6 Externally illuminated exit signs		x								7	0	DEL	
SECTION 1018 AISLES													
1018.5 Aisles in other than assembly spaces and groups B and M										5	0	DEL	
SECTION 1019 EXIT ACCESS STAIRWAYS AND RAMPS													
1019.3 Occupancies other than Groups I-2 and I-3		x		x	x					0	6	CF	
SECTION 1020 CORRIDORS													
1020.2 Construction		x								0	6	CF	

## SECTION 1013 EXIT SIGNS

Section 1013.5.1 Graphics is added as follows:

1013.5.1 Graphics. Exit signs shall have green lettering on a contrasting field or white lettering on a green field.



# Amendment Reduction Effort - Summary

1,523 amendments considered


**30% reduction!**

	IBC	IEBC	IRC	IMC	IPC	IFGC	IFC	Total
<b>No. of carry forward amendments:</b>	140	18	271	34	41	15	540	<b>1059</b>
<b>No. of deleted amendments:</b>	123	3	36	1	27	0	274	<b>464</b>
<b>Total No. of amendments considered:</b>	263	21	307	35	68	15	814	<b>1523</b>
<b>Percent reduction:</b>	47%	14%	12%	3%	40%	0%	34%	<b>30%</b>

# Limited New Amendments - Example

## IBC Appendix P Sleeping Lofts

- New appendix in IBC
- Deemed necessary to consider since it supports Denver’s affordable housing goals
- Allows sleeping lofts with less restrictive code requirements
- Higher density at lower cost
- Life safety aspects determined to be acceptable
- Committee voted to adopt



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**DENVER AMENDMENT PROPOSAL FORM**  
FOR PROPOSALS TO THE 2022 DENVER BUILDING CODE  
AMENDMENTS AND THE 2024 INTERNATIONAL CODES

2024 CODE ADOPTION LITE

Proponent Name: David Renn  
Date of Submittal: 10/21/24

Highlight the acronym and code name below that applies to the proposal:

Acronym	Code Name	Acronym	Code Name
DBC ADMIN	Denver Building Code–Administration	DPC	Denver Plumbing Code
DCBC	Denver Commercial Building Code	DRC	Denver Residential Code
DEBC	Denver Existing Building Code	DFGC	Denver Fuel Gas Code
DRC	Denver Residential Code	DMC	Denver Mechanical Code

Submittal instructions: Save proposal with following naming convention and email to Committee Chair or CAL Manger: ACRONYM Section # - Date.docx (e.g., DCBC 1010.2.7 - 071524.docx)

AMENDMENT PROPOSAL

Please provide all the following items in your amendment proposal.

Code Sections/Tables/Figures Proposed for Revision:

Instructions: If the proposal is for a new section, indicate (new), otherwise enter applicable code section.

Appendix P Sleeping lofts

Proposal:

Check box next to the choice that best defines your proposal: ☒Revision ☐New Text ☐Delete/Substitute ☐Deletion

Instructions: Show the proposal below using strikeout, underline format:

COMMERCIAL BUILDING CODE APPENDIX ADOPTION TABLE 1

APPENDIX	TITLE	STATUS
P	Sleeping Lofts	<del>Not</del> Adopted

(remainder of table is unchanged)

Denver Amendment Criteria:

Instructions: To be considered, proposed amendment must meet one or more of the following Denver specific criteria. Check box next to all criteria that apply and provide explanation if “other” is checked. Note: only proposals deemed necessary at this time by the committee chair and the Building Official will be considered.

☐Environmental characteristics specific to Denver  
☐Customary practice specific to Denver  
☐Coordinates with other agency regulations  
☐Provides fire fighter safety per DFD operations  
☐Corrects an error that creates a potentially unsafe condition  
☐Fills a hole in the code or provides clarification of a code section that is interpretive  
☐Supports Denver’s climate, sustainability, or accessibility goals  
☐Correlates with amendments in other codes or ADMIN section  
☒Other – explain: Supports Denver’s affordable housing goals

Supporting Information (Required):

Instructions: Provide a written explanation and justification of how the proposal addresses the criteria checked above. The following questions must be addressed for a proposal to be considered. All proposals should be equitable in every area possible. (\*Equity: fair and impartial; freedom from bias or favoritism. (e.g., an amendment that disproportionately impacts a person or persons, a type or occupancy of building, the ability of any customer to achieve compliance, or creates different outcomes for one group compared to another would be inequitable.)

Purpose: What does your proposal achieve?

Reason: Why is your proposal necessary?

Substantiation: Why is your proposal valid? (i.e., technical justification)

The 2024 IBC includes a new appendix for sleeping lofts which allows for small (35 to 70 SF) loft areas to have less restrictive code requirements than mezzanines. Examples include lower ceiling heights and allowance of ladders for means of egress from the loft. For life safety reasons, this new appendix does require smoke alarms to be installed in all sleeping lofts, not just the room the loft is within. It should be noted that sleeping lofts are included in the body of the 2024 IRC (not an appendix), so sleeping lofts will be allowed in projects governed by the 2024 IRC.

Many other large jurisdictions are seeing sleeping lofts proposed with new development and it’s only a matter of time for this to be proposed in Denver. It’s better to adopt this appendix now and have a consistent set of rules than the alternative of evaluating these on a case-by-case basis through administrative modification requests for alternative methods of design.

Sleeping lofts allow for higher density units that capture available space within the unit at a much lower cost than if required to comply as a mezzanine. Because of this, sleeping lofts would lower cost of construction when utilized and could be effective as a tool to use towards Denver’s affordable housing goals.

Bibliography and Access to Materials

(as needed when substantiating material is associated with the amendment proposal):

Click or tap here to enter text.

Referenced Standards:

Instructions: List any new referenced standards that are proposed to be referenced in the code.

Click or tap here to enter text.

Impact:

Instructions: How will this proposal impact the following items? (Check appropriate box for each item.)

Cost of construction:

☐Increase

☒Decrease

☐No Impact

Cost of design:

☐Increase

☐Decrease

☒No Impact

Code restrictiveness:

☐Increase

☒Decrease

☐No Impact

Barriers to adaptive reuse:

☐Increase

☒Decrease

☐No Impact

Time of plans review:

☐Increase

☐Decrease


☒No Impact

Time of inspections:

☐Increase

☐Decrease

☒No Impact



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# Significant Changes to Denver's Amendments

Most significant change:

Large reduction in the number of amendments!



- Easier compliance for designers
- Easier/faster reviews for plan reviewers
- Reduced number of resubmittals

Following slides highlight some other significant changes.

See [this webpage](#) for complete list of significant changes

# Chapter 1 – Administration Section

- Simplification of administration amendments by following IBC language where possible
- Transition Rules:
  - Rules defined in DRMC Section 10-20
  - Effective Date of December 31, 2025
    - Projects can submit a building permit application using either the current code (2022) or new code (2025) until then
  - Rules have been simplified for clarity with few exceptions
  - Applications of active building plan review projects do not expire unless:
    - There is no applicant activity on a review for over 90-days
    - It has been more than 18-months and a permit has not been issued
    - The effective date of a new series of codes adopted by council comes to pass



# IBC Emergency Power Requirements

403.4.8 (high rise)

405.8 (underground buildings)

1009.4.1 (accessible MOE elevators)

3007.8 (fire service access elevators)

- Deleted amendments that required more systems to be on emergency power than the IBC
- Brings Denver in line with national codes
- Reduces construction cost
- Improves safety of emergency power system by reducing start up demand





# IBC Chapter 10 – Means of Egress

## 1005.3 Required capacity

- Deleted amendments with larger egress width factors than the IBC
- Reduces width requirements for stairways and doors where sprinkler system and emergency/voice alarm system are provided
- Allows increased occupant density in existing buildings
- Reduces construction cost



# IBC Chapter 16 – Structural Design

## 1608 Snow loads

- Deleted amendments for ground snow load and increased importance factors
- IBC references ASCE 7-22 for snow loads, which addresses Denver's previous amendments
- Snow loads will vary by location across Denver (higher and lower than before)
- Snow loads are based on new statistical approach and many more years of data
- Similar changes for IRC projects



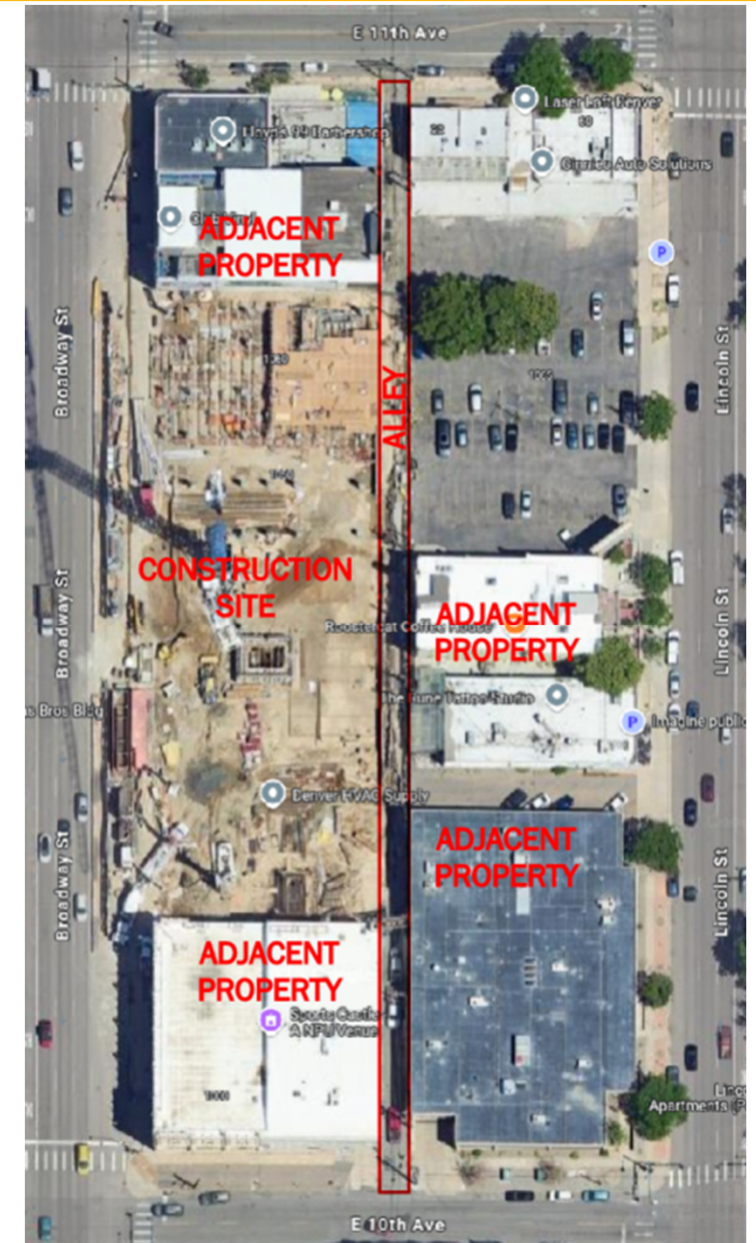
March 2003  
Blizzard - 31.8"



# IBC Chapter 33 – Safeguards During Construction

## 3007 Protection of Adjacent Property

- Notification now required for adjacent properties instead of just adjoining properties
- This now captures buildings across an alley
- Notification requirements now include all new buildings and additions over 200 SF instead of just those that require excavations with shoring or benching
- Detailed notification criteria will be provided in policy



# IBC Appendix P – Sleeping Lofts

## Appendix P – Sleeping lofts

- Adopted new appendix for sleeping lofts in residential units
- Allows sleeping lofts with less restrictive code requirements (e.g., lower ceilings and ladders allowed)
- Higher density at lower cost
- Supports Denver’s affordable housing goals
- Sleeping lofts are also in the body of the 2024 IRC, so they will be allowed for one- and two-family dwellings and townhouses as well





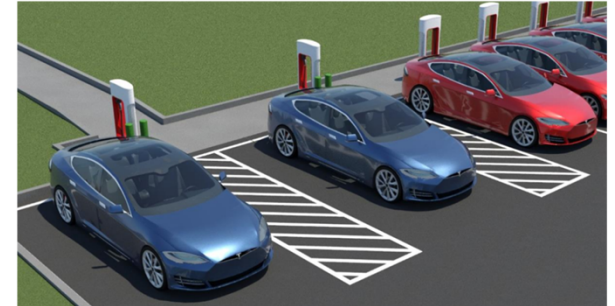
# IRC Chapter 4 - Foundations

## R401.4 Soils tests and geotechnical evaluation

- Amendments requiring soils tests and geotechnical investigation for most IRC projects are deleted (*regulatory reduction*)
  - Soils tests now *only* required for expansive, compressible, shifting, or questionable soils
- Amendments closely align with national codes



# IECC Chapter 4 – EVSE



## C405.13 Electric Vehicle Supply Equipment

- Amendments revised to align with *Colorado State Model Electric Ready and Solar Ready Code*
- Removed EV Ready to simplify compliance – now only EVSE Installed and EV Capable are required
- Simplified requirements based on occupancy to only have two categories – Groups R-1/R-2 and all other occupancies

Table C405.13.1 REQUIRED EV CHARGING INFRASTRUCTURE

OCCUPANCY	EVSE INSTALLED SPACES	EV READY SPACES	EV-CAPABLE SPACES
GROUP A, B, E, M	10%	5%	10%
GROUP I	5%	0%	5%
GROUP R-1 AND R-2*	15%	5%	40%
GROUP R-3 AND R-4	2%	0%	5%
GROUP S-2 parking garages	10%	5%	0%

\*Where all parking spaces serving R-2 occupancies are EV ready spaces, requirements for EVSE spaces for R-2 occupancies shall not apply.

Occupancy Served	EVSE Installed Space	EV Capable
Occupancy Groups R-1 and R-2	15%	45%
All Other Occupancy Groups	10%	20%

# IECC Chapter 4 & 5 – Commercial Energy Efficiency & Existing Buildings

C403.2.4 Space heating equipment

C404.10 Water heating

C503.3.2 Low-nitrogen emissions

C503.3.3 Partial electrification for space heating

C503.4.1 Electrification for service water heating

- Regulations of fossil-fuel and electric resistance equipment for space and water heating now apply to new buildings only
  - Previously applied to new equipment in existing buildings as well
- New or replacement equipment in existing buildings with additions or alterations can now more easily comply



**Simplifies energy code compliance for equipment in existing buildings!**

# IFC Chapter 1 Operational Permits

## Section 105

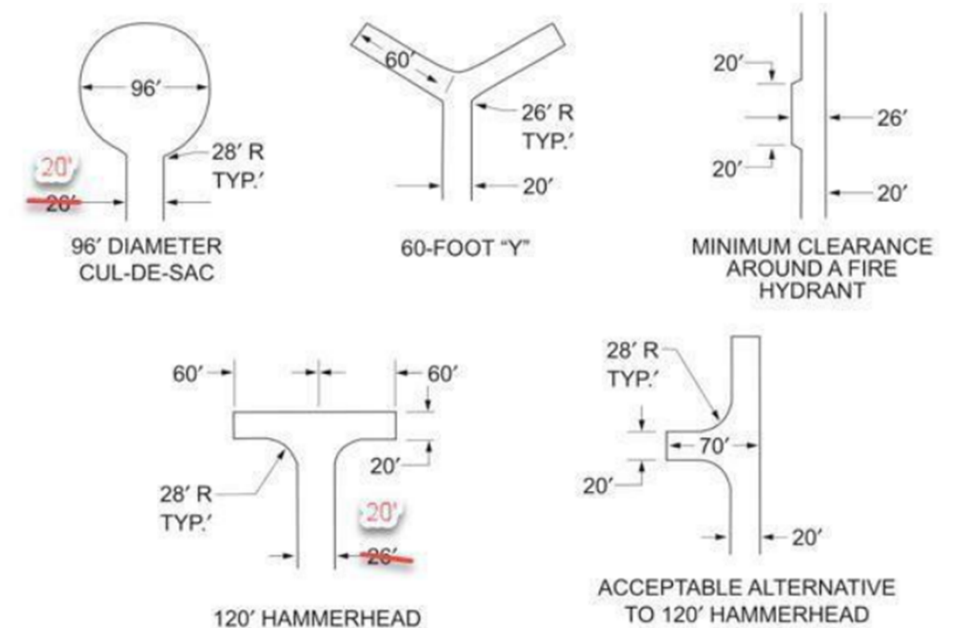
- Reduced number of permit types from 185 to 95 (49% reduction)
- Removed outdated provisions for hazards that are no longer in use, e.g., citrate films
- Reduces owner's annual operating costs
- Reduces efforts required by owners to obtain annual permits





# IFC Chapter 5 FD Access

- Wood constructed buildings require breezeways to access central courtyards
- Base code provisions implemented for street widths
- Appendix D more detailed and streamlined (access points to each property, residential properties for 30 & 100 unit dwellings )
- Emergency Responder Communication Enhancement System room ratings maintained & survivability per NFPA 1225



# IFC Chapter 9 Fire Alarm

## Section 907

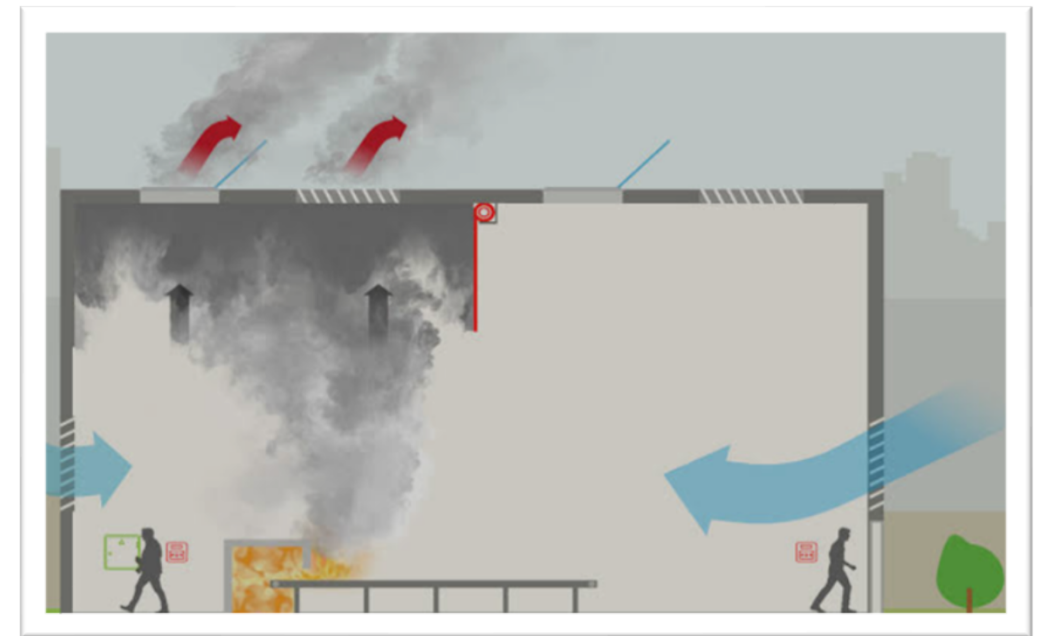
- Base code provisions implemented, e.g., schools & nursing homes, CO, elevator functions.
- Changes in detection and system components (reduced nuisance alarms)
- Removed remote indicators for initiating devices (reliant on technology at FACP's to guide FFs)
- Removed smoke control automatic sequencing thereby reducing intense programming of the fire control panel
- Refrigeration & gas detection (H's) alarms no longer monitored by FACP



# IFC Chapter 9 Smoke Removal/Control

## Section 909

- Base code provisions implemented for highrise (smoke removal), atrium & underground buildings
- Maintains control via FACP/FFSCP
- Maintains condition monitoring (supervision) intended for predictive maintenance, preventing breakdowns and optimizing resource (system reliability) including VFD protections
- Maintains annual testing approach for existing systems
- System sizing per designer for verticals (no longer prescriptive)



# IFC Appendix O – Valet Trash & Recycle

- Create provisions for modern apartment/condo living
- Manage hazards in egress corridor
- Building owners responsibility



Requesting Approval to move out of committee to full Council

Thank you!  
Questions?

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