



Davis Bews Design Group, Inc.

150 State Street East

Oldsmar, FL 34677

(813) 925-1300

Commercial CAD Technician

Instructions for the Digital Interview

Thank you for your interest in working with us! We are excited that you are considering applying for a position as Commercial CAD Technician! If you run into any issues, please email ginaz@davisbews.com for support. However, please understand that emails to this address will not be accepted in lieu of the formal online interview. Please read this set of instructions before beginning.

The complete assessment consists of a short video interview, a 16-question multiple choice quiz, and both a residential and commercial drafting exercise. Please read all instructions before beginning.

Instructions

1. Complete the camera interview. The questions are in Section I on the next page. Rest assured that you do not need to dress up, be in a fancy setting, or produce a high-quality interview. This step merely allows us to share, verbatim, your best answers to important questions with the appropriate people.
2. Complete the residential drafting exercise following the instructions in Section II. You will be providing a video recording of your screen while you complete the exercise.
3. Complete the Commercial code in Section III by following the instructions on that page.
4. Complete the multiple-choice quiz in Section IV. When you submit all of your materials through our job portal, you will provide your answers to these questions directly in the submission form.
5. Submit your quiz responses, resume, CAD screen recording video and its corresponding .dwg file, commercial exercise and interview video as a zip file via our job portal on our website [here](#).

Software/Hardware Requirements

1. Autodesk 2D AutoCAD (any version, including a free trial)
2. Screen recording software of your choosing. If you don't have one, you can download a free 30-day trial of Camtasia by TechSmith [here](#).
3. Printer (optional but recommended).



Davis Bews Design Group, Inc.

150 State Street East

Oldsmar, FL 34677

(813) 925-1300

Section I: Interview Questions for Video Response

Please record yourself on video answering the following questions. Don't worry about backgrounds or making anything look or seem professional, this is just a way to make sure that we can share your responses among the appropriate parties without mistranslating your words or meanings as it is repeated.

Your video should be approximately 3-5 minutes long.

1. What are you looking for in a position?
2. Why do you want to work with us?
3. Why are you a good fit for the position described from both a personal and professional standpoint?
4. Tell us about both the best and worst jobs you've ever had? Why were they the best and worst?
5. How would you rank yourself versus your peers based on knowledge, speed, and accuracy among your classmates and/or colleagues?
6. Please give an example of what you are currently working on.
7. What would you do if a contractor had a mechanical question on the plans?
8. What do you see yourself doing in 5 years; what would you need to be working on/doing every day that would make you happy in your job?



Section II: Residential Drafting Exercise

AutoCAD Floor Plan and Roof Plan Exercise – CAD Evaluation

Please print and read this entire assessment and all instructions before beginning.

Objectives: Create an .mp4 of your drafting process AND create a .dwg for our review.

You will be required put a floor plan into AutoCAD, dimension the exterior, and then create a roof plan. Finally, you will need to copy the plan and make an entry modification, then copy the roof plan and make an additional modification.

This is the most crucial of the assessments you will complete, as it allows us to gain understanding of your efficiency & knowledge of AutoCAD as a program. We are evaluating speed, accuracy, and technique.

The Assignment Steps – Please follow all carefully.

1. Open AutoCAD, with architectural settings in place. Save your drawing using your last name as the file name, ex. "your last name.dwg"
2. Turn your "Limits" to OFF.
3. Turn your Snap on by typing "SNAP" at the command prompt and turning it on.
 - a. Hint: Set your snap to 4-inch increments to layout exterior walls and back to 1-inch afterwards to lay out interior walls.
4. Create the following layers:

<i>Layer</i>	<i>Color</i>	<i>Linetype</i>
CONC	9	default
DIMEN	red	default
HIDDEN	Green	Hidden
ROOF	30	default
WALL	White	default

5. Layout Floor Plan No. 1 (do not layout example Floor Plan No. 2) by using the information given. The exterior walls are 8" wide. Interior walls are 4 inches wide. All walls and columns are drawn on the "WALL" layer.
6. Lanai and Entry concrete lines are on the "CONC" layer, but make sure you have the column on the "WALL" layer.
7. Once walls are drawn, set your snap back to 1".
8. Set your DIMSCALE to 48. Dimension the exterior of the floor plan. Use proper dimensioning techniques; *not how it is shown on the example.



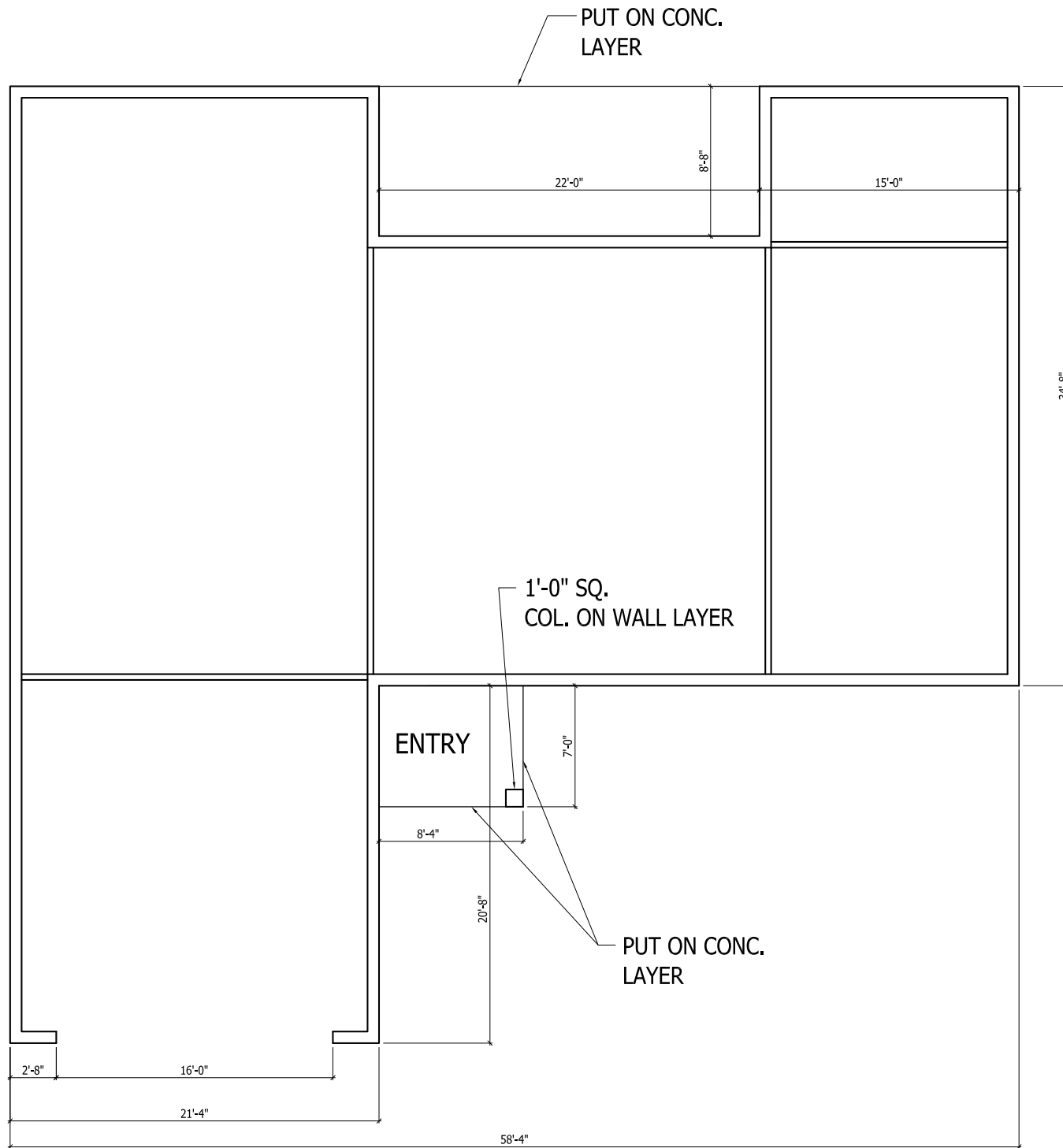
Davis Bews Design Group, Inc.

150 State Street East

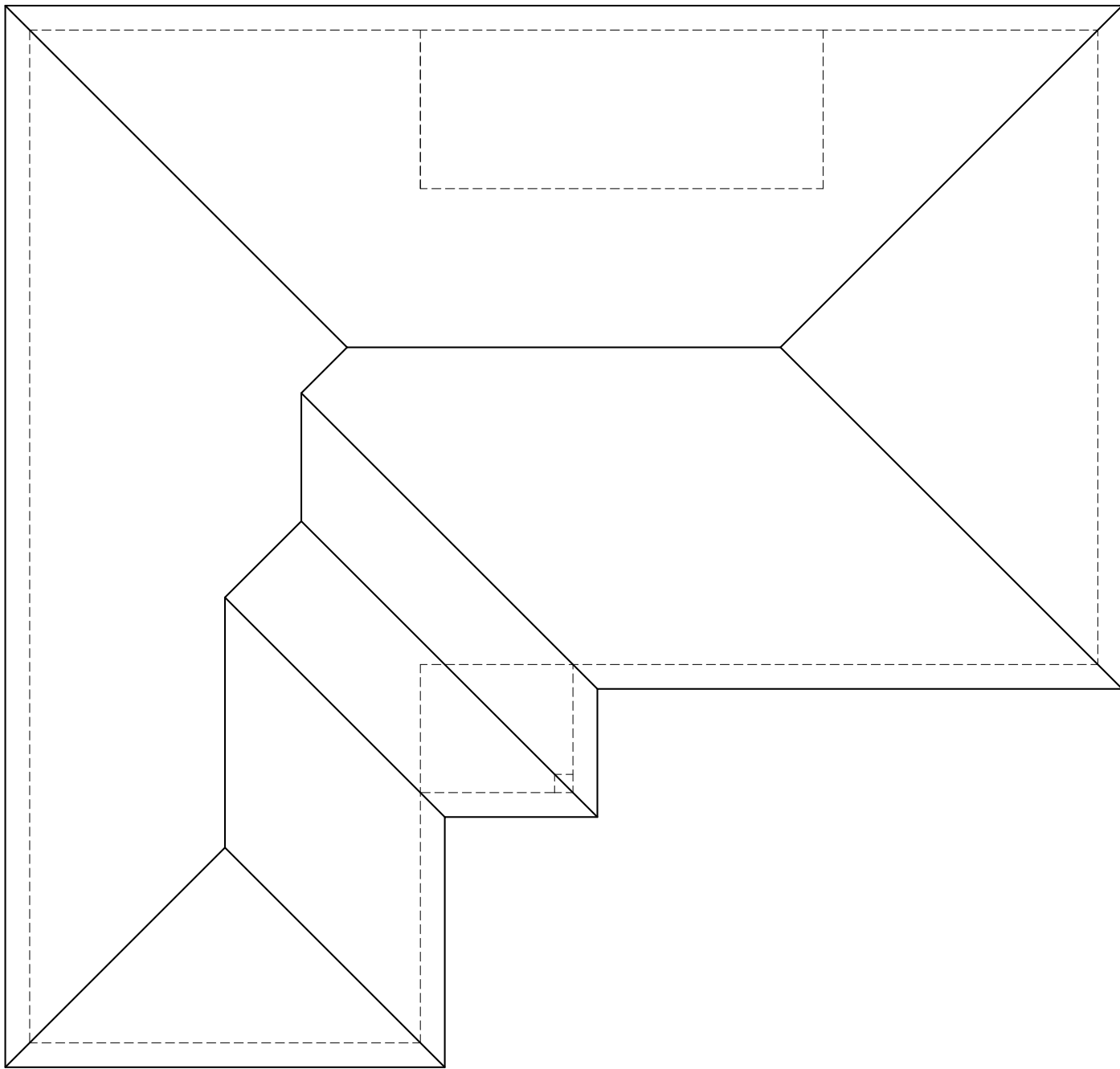
Oldsmar, FL 34677

(813) 925-1300

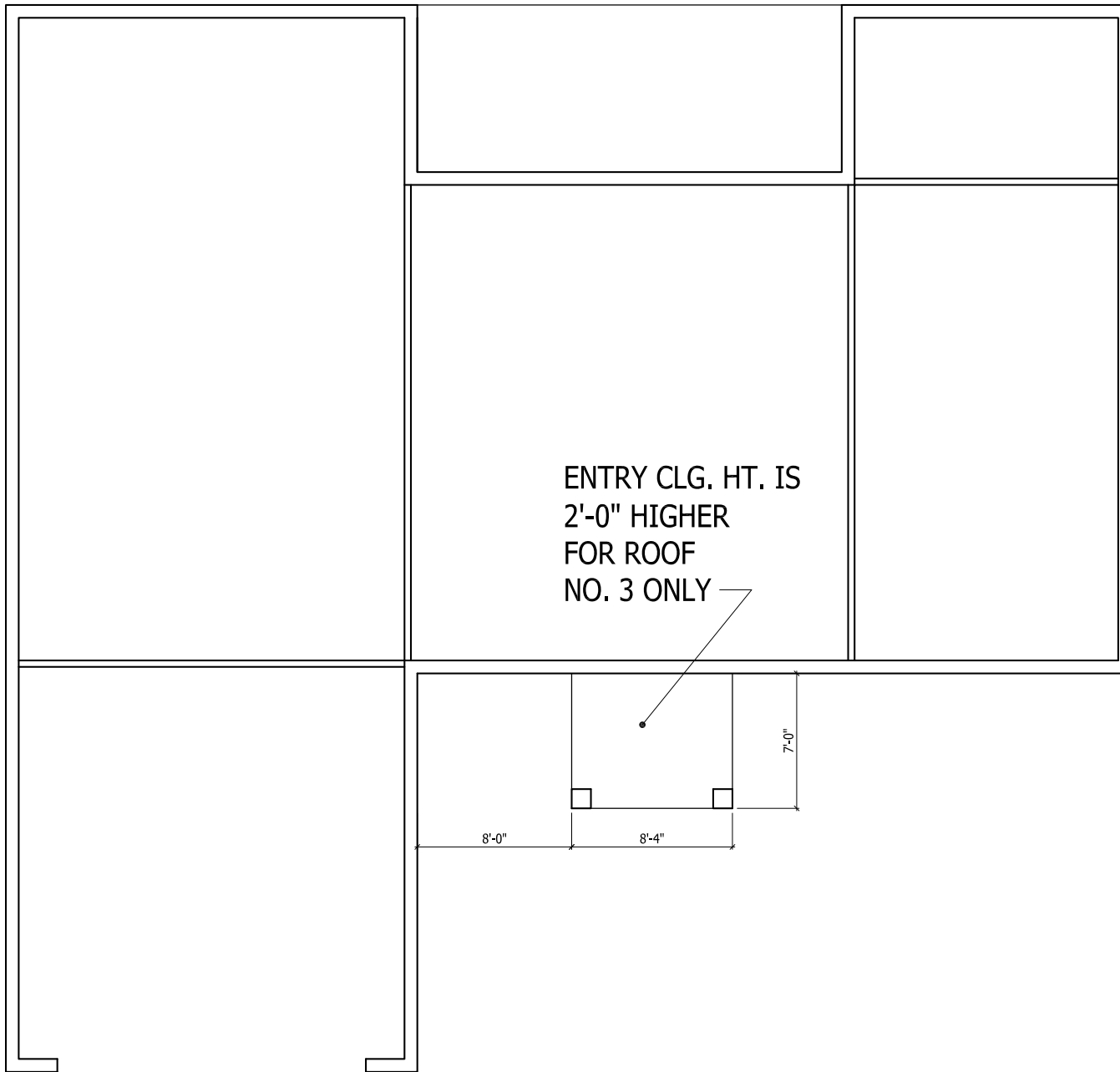
- a) Dimensions should be on the "DIMEN" layer. Make sure the dimension text is large enough to read when printed.
9. Set your LTSCALE to 24.
 10. Copy Floor Plan No. 1 over to the right and create a roof plan with all hip roofs (see example roof plan). Roof overhangs are to be 1'-4". Only the outer wall lines, columns, porch and lanai slab lines should be shown, and placed on the "HIDDEN" layer. Roof lines are drawn on the "ROOF" layer.
 11. After you have created the first roof plan, copy it over to the right so you'll have two roof plans shown.
 12. You will modify this second roof plan by adjusting the entry location to reflect example Floor Plan No. 2. Revise the hip roof of the main house and show another hip roof over the entry area that engages (runs into) the main roof.
 13. Next, copy the second roof plan over to the right (you should be showing 3 roof plans at this time). Modify the entry roof linework so it will be 2'-0" higher than the surrounding roof area but still engages (runs into) the main roof. Please note the roof pitch is 6:12.
 14. Please review your work and revise as needed before submitting your cad file for our review.



FLOOR PLAN NO. 1



EXAMPLE ROOF PLAN



MODIFIED ENTRY LOCATION
FOR ROOF PLAN NO. 2



Davis Bews Design Group, Inc.

150 State Street East

Oldsmar, FL 34677

(813) 925-1300

Section III: Commercial Exercise

Here is a Life Safety Plan with a minimum of 5 mistakes or code violations. List as many as you can find and include what needs to be corrected. Do this on a separate document.

Instructions:
 Here is a Life Safety Plan with a minimum of 5 mistakes or code violations. List as many as you can find and include what needs to be corrected.

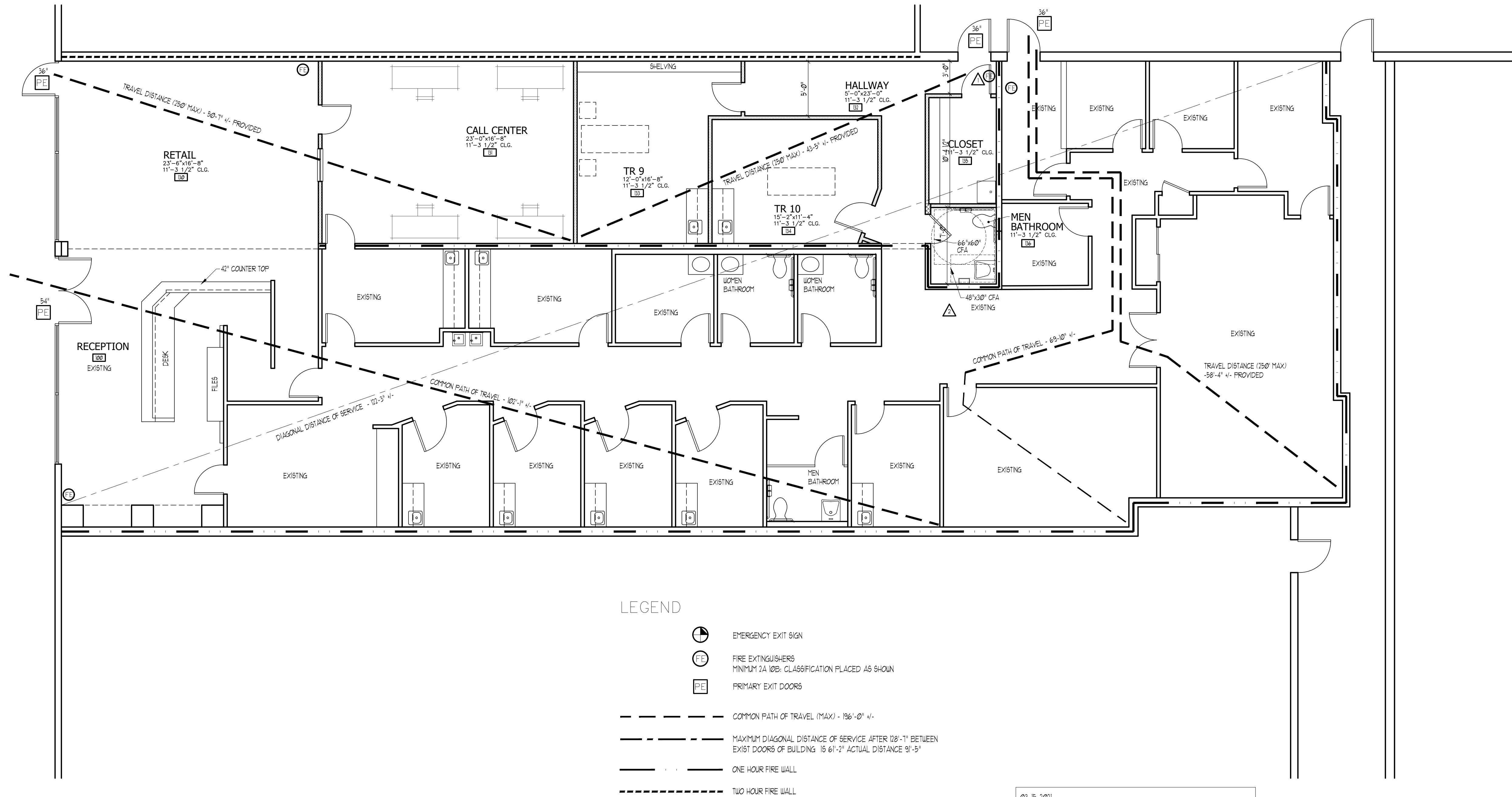
NUMBER OF EXITS	MEANS OF EGRESS DISTANCE
PER FBC TABLE 1006.3.1	PER LIFE SAFETY CODE, CH. 7, TABLE A.1.6
OCCUPANT LOAD MORE THAN 100	COMMON PATH LIMIT SPRINKLERED - 20 FT. / 15 FT.
NUMBER OF EXITS REQUIRED 2	SERVING > 50 PERSONS - 20 FT. SERVING ≤ 50 PERSONS - 15 FT.
	DEAD-END LIMIT SPRINKLERED - 20 FT.
	TRAVEL DISTANCE LIMIT SPRINKLERED - 200 FT.

NEW		
OCCUPANT LOAD	REQUIRED	PROPOSED
CALL CENTER	389 SF / 15 NET	26 OCCUPANTS
OFFICES, OTHER SPACES	1074 SF / 100 GROSS	11 OCCUPANTS
		37 TOTAL OCCUPANTS

COMBINED		
OCCUPANT LOAD	REQUIRED	PROPOSED
CALL CENTER	389 SF / 15 NET	26 OCCUPANTS
OFFICES, OTHER SPACES	4366 SF / 100 GROSS	46 OCCUPANTS
		72 TOTAL OCCUPANTS

EXISTING FIRE SPRINKLER MODIFICATION FOR NEW ADDED SPACE IS UNDER ANOTHER PERMIT.

- LIFE SAFETY NOTES AS PER FBC 2011:
- HANDRAILS SHALL COMPLY WITH FBC 2011 BUILDING SECTION 1002.8.
 - GUARD RAILS SHALL COMPLY WITH FBC 2011 BUILDING SECTION 1002.9.
 - THE ELEVATION OF THE FLOOR SURFACES ON BOTH SIDES OF THE DOOR SHALL COMPLY WITH FBC 2011 BUILDING SECTION 1011.5.
 - THE MEANS OF EGRESS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 1 FEET 6 INCHES.
 - ELEMENTS CANNOT PROJECT OVER WALKING SURFACES MORE THAN 4 INCHES WHEN THEY ARE LOCATED BETWEEN 21 AND 80 INCHES ABOVE THE FLOOR.
 - WALKING SURFACES SHALL BE SLIP RESISTANT UNDER FORSEABLE CONDITIONS, THE WALKING SURFACE OF EACH ELEMENT IN THE MEANS OF EGRESS SHALL BE UNIFORMLY SLIP RESISTANT ALONG THE NATURE PATH OF TRAVEL.
 - SEE SHEET EI FOR EXIT AND EMERGENCY LIGHTING INFORMATION.
 - INTERIOR WALL AND CEILING FINISH MATERIAL COMPLYING WITH SECTION 1002 SHALL BE CLASS A OR CLASS B IN EXITS AND IN EXIT ACCESS CORRIDORS. INTERIOR WALL AND CEILING FINISHES SHALL BE CLASS A, CLASS B, OR CLASS C IN AREAS OTHER THAN EXITS AND EXIT ACCESS CORRIDORS. SEE FFFC 101.9.3.3.2.



03-15-2021

THESE CONSTRUCTION PLANS HAVE BEEN PREPARED BY AN ARCHITECTURAL DESIGNER UNDER THE DIRECT SUPERVISION OF STEVE GORDILLO, PE AND HEREBY CERTIFIED TO COMPLY WITH THE 6TH EDITION OF THE 2011 FLORIDA BUILDING CODE.

TO THE BEST OF THE ENGINEER'S KNOWLEDGE AND BELIEF, THE PLANS AND SPECIFICATIONS COMPLY WITH THE 6TH EDITION OF THE 2011 FLORIDA BUILDING CODE.

THE DRAWING IS SEALED FOR THE STRUCTURAL PORTIONS ONLY.

DAVIS BEWS DESIGN GROUP

150 STATE STREET EAST
 CLEMATON, FLORIDA 34677
 813-925-1300 TEL
 813-925-1800 FAX
 WWW.DAVISBEWS.COM
 TAMPA • DENVER
 EST. 1994

JOB NUMBER	B-1823382
CAD FILE	RAD_SPA
ISSUED	10-05-2020
REVISED	10-16-2020
	01-18-2021
	02-22-2021
	03-15-2021

radiance
 There's a younger you inside™

MECUSA

.VGLLogo_Small.jpg

ENGINEERING DESIGN

G3X DESIGN, LLC
 2237 CLIMBING IVY DR
 TAMPA, FL 33618
 (813) 928-8339
 FL C.A. #311107

RADIANCE MED SPA
 2894 W. BAY DR.
 BELLEAIR BLUFFS, FL 33770

TITLE
 LIFE SAFETY PLAN

SHEET
LS1

LIFE SAFETY PLAN

SCALE: 3/16" = 1'-0"



Davis Bews Design Group, Inc.

150 State Street East

Oldsmar, FL 34677

(813) 925-1300

Section IV: Multiple Choice Quiz

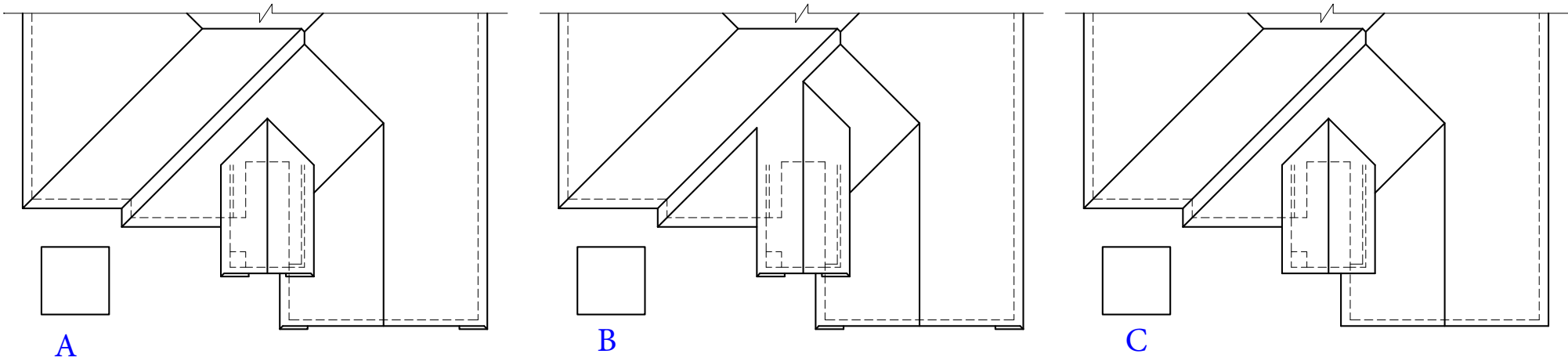
The multiple-choice questions begin on the next page. You will submit your responses via our job portal, at this [link](#).

Along with these quiz answers, you will need to attach your resume, your CAD exercise screen recording video and its corresponding .dwg file, and your interview video.

You will hear back from us via your preferred method of contact within 3 business days. Thanks for applying and we can't wait to talk with you further!

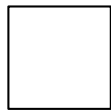
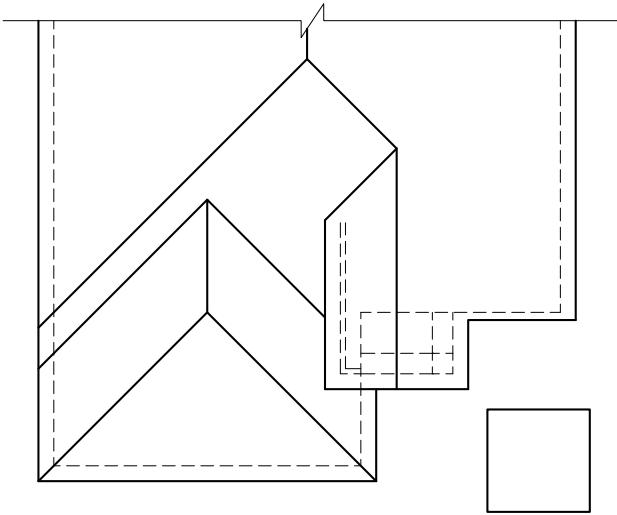
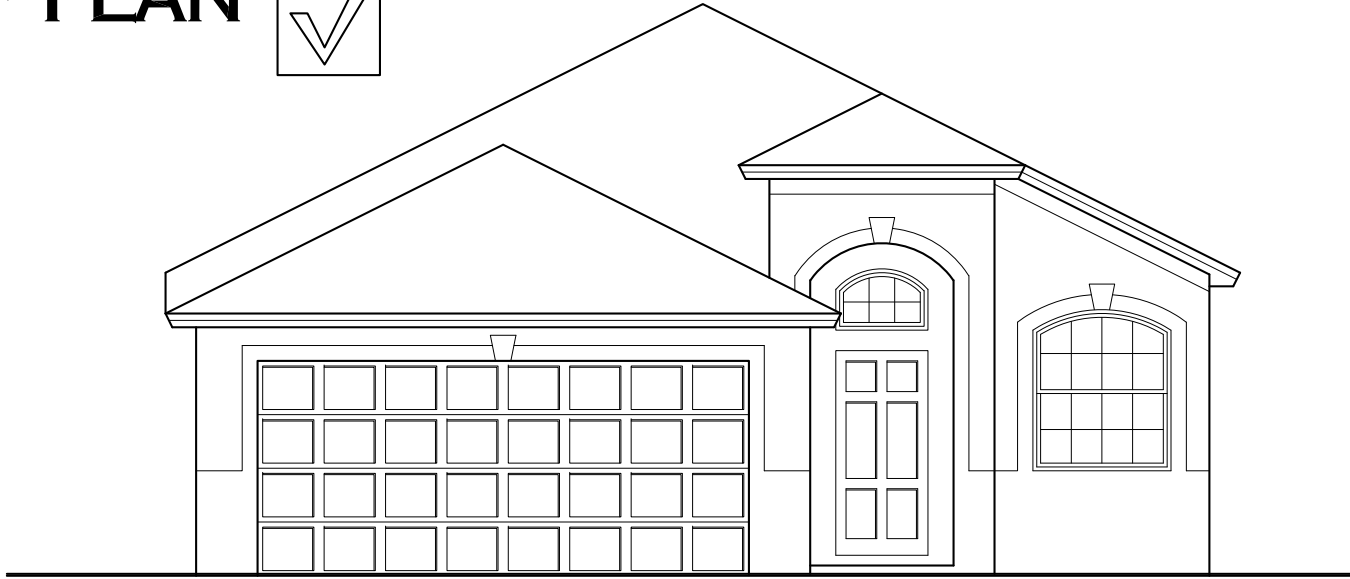
Question #1

1 SELECT THE CORRECT
ROOF PLAN

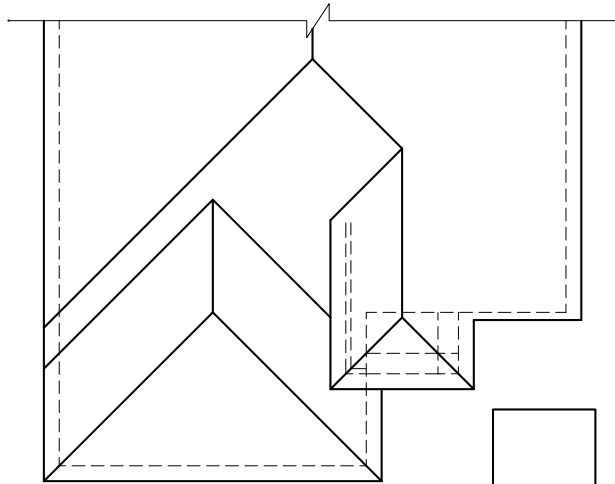


Question #2

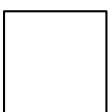
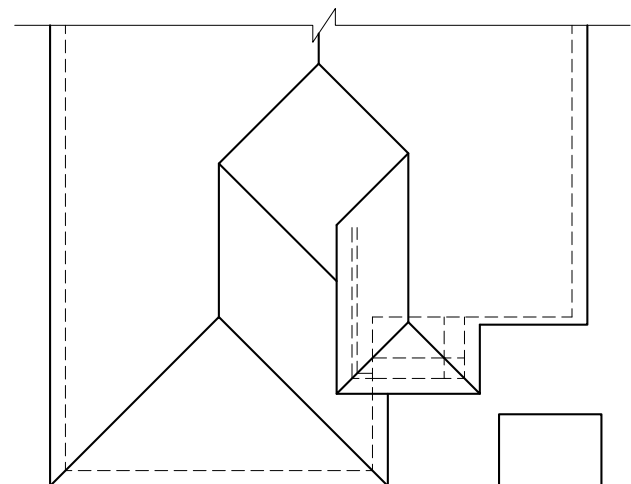
2 SELECT THE CORRECT ROOF PLAN



A



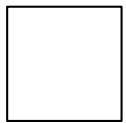
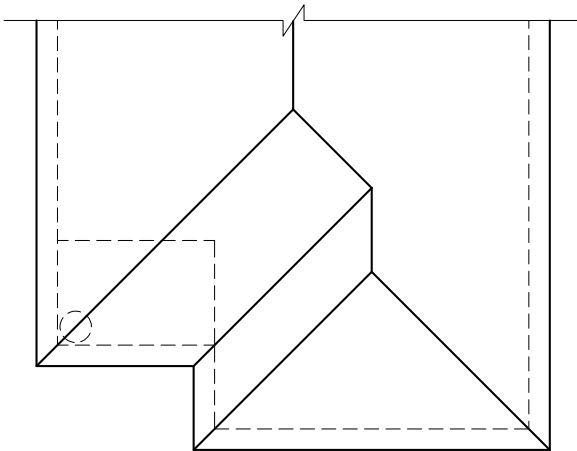
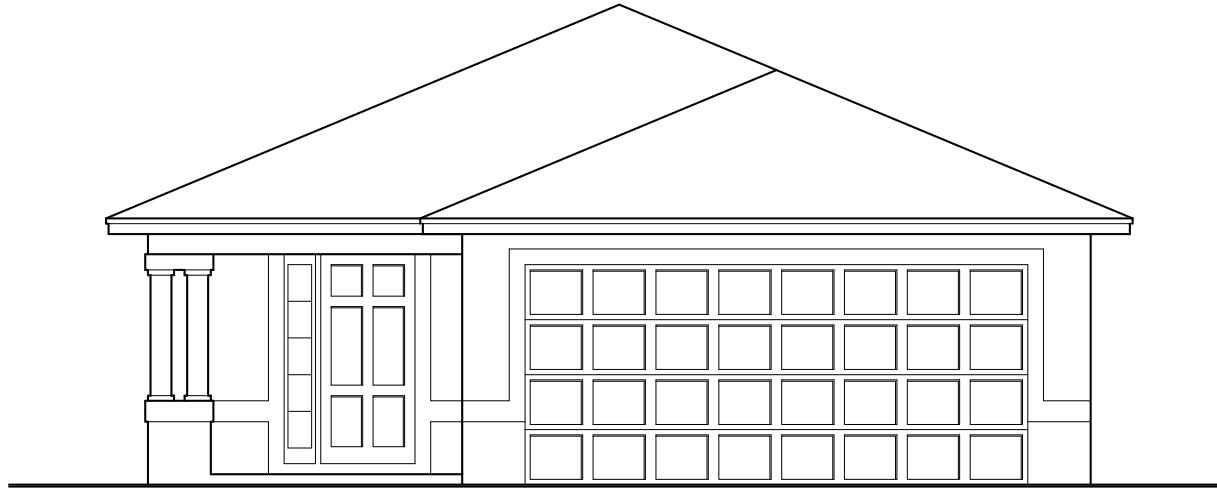
B



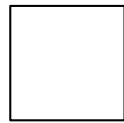
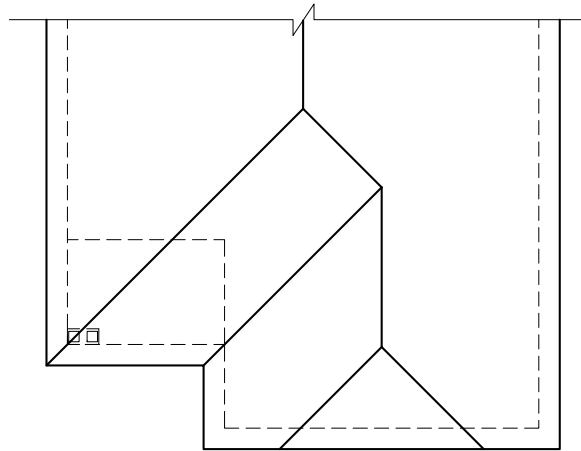
C

Question #3

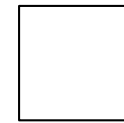
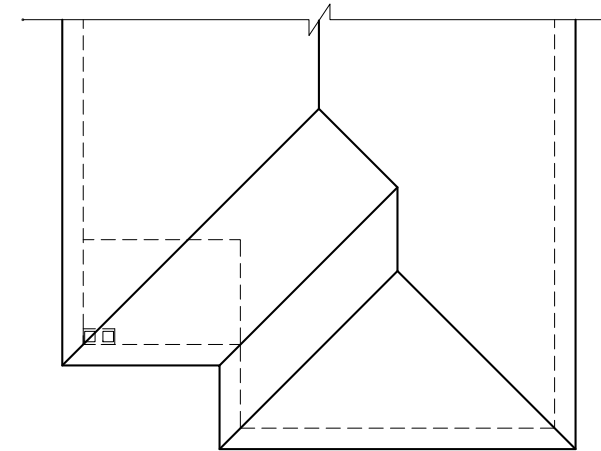
3 SELECT THE CORRECT ROOF PLAN



A



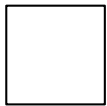
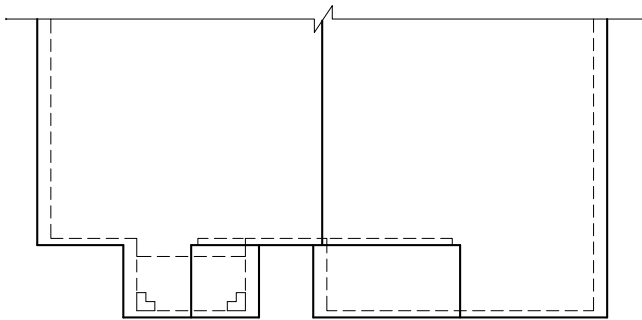
B



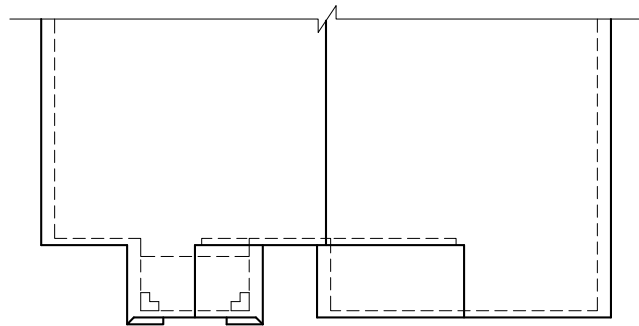
C

Question #4

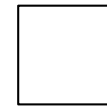
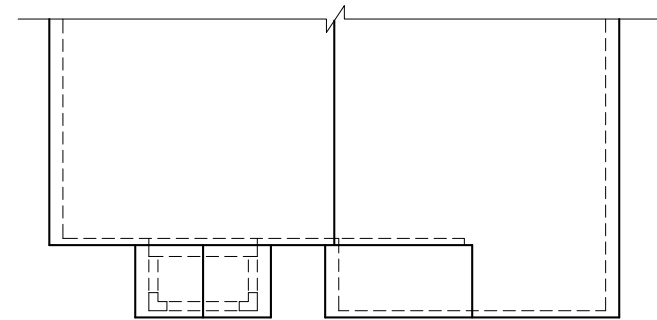
4 SELECT THE CORRECT ROOF PLAN



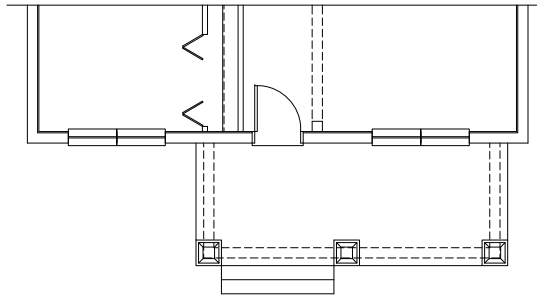
A



B



C



A

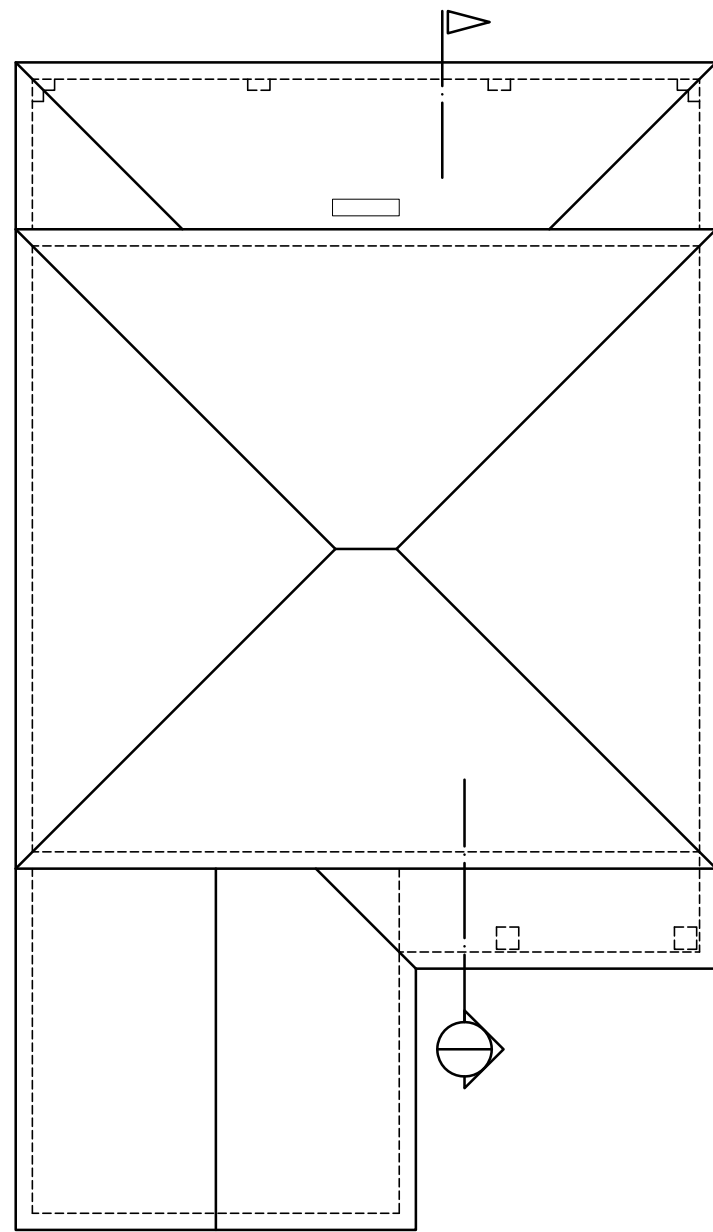


B

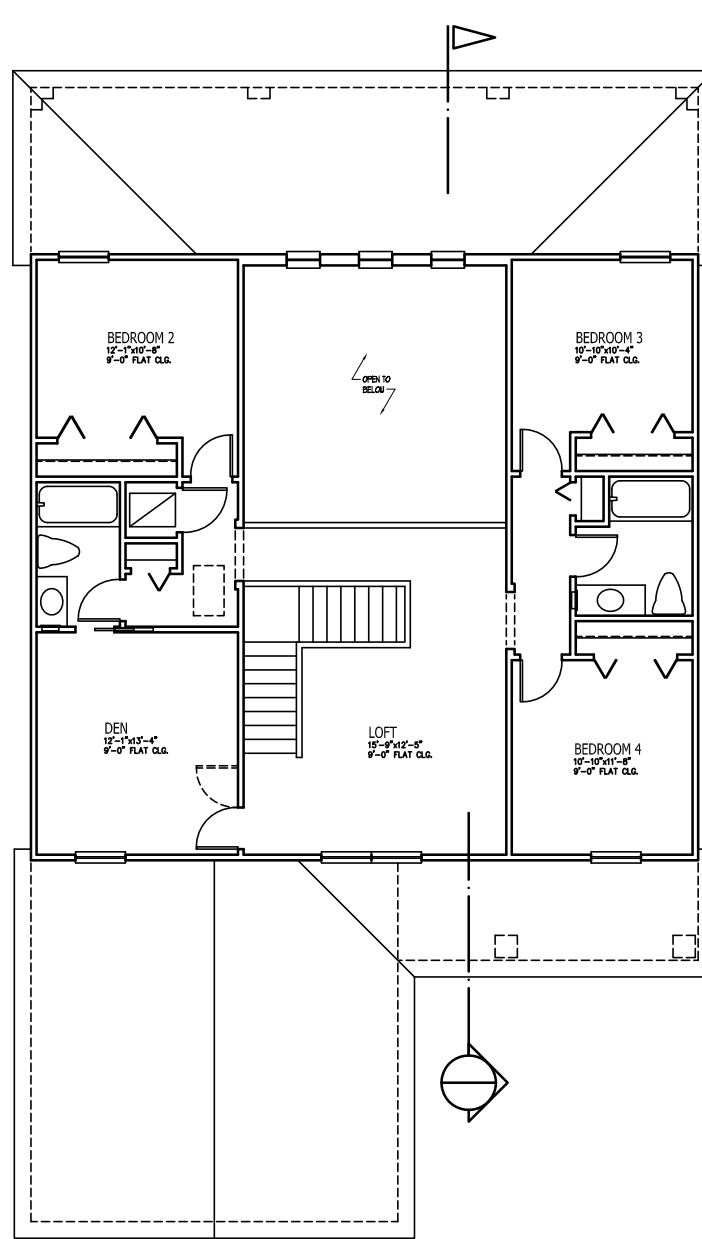


C

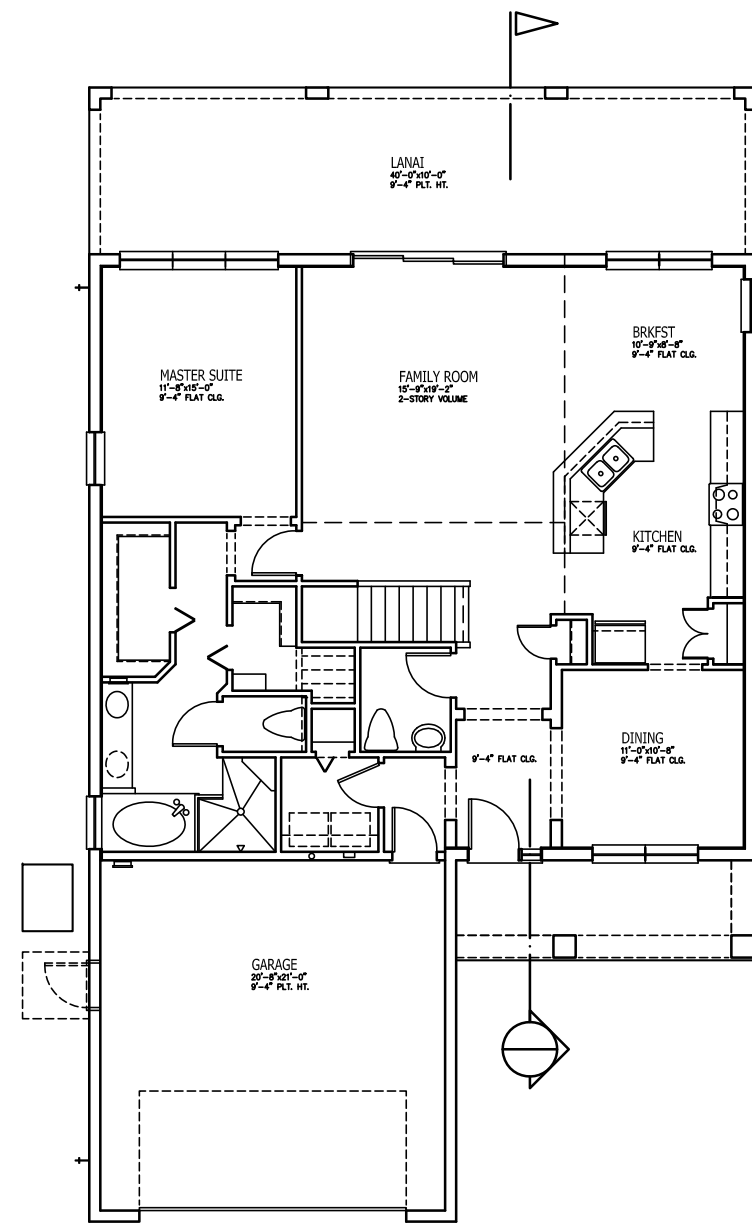
Question #5: PICK ELEVATION THAT BEST DEPICTS FLOOR PLAN



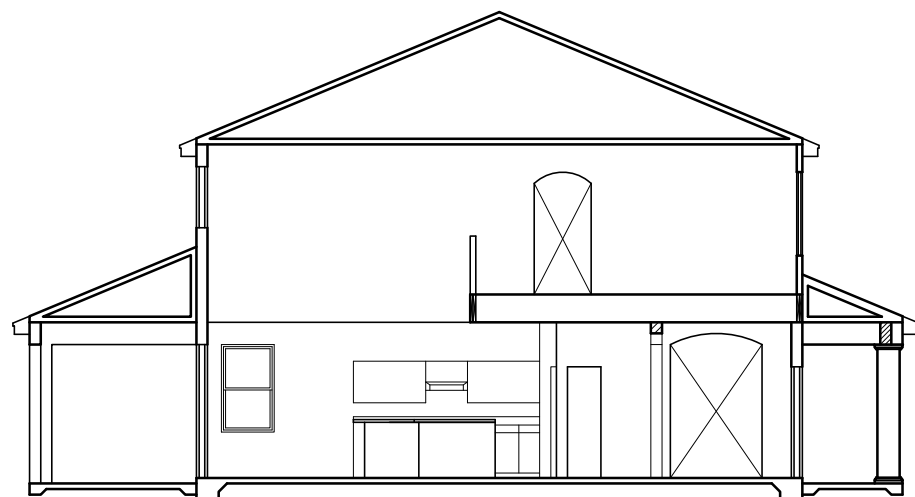
ROOF PLAN



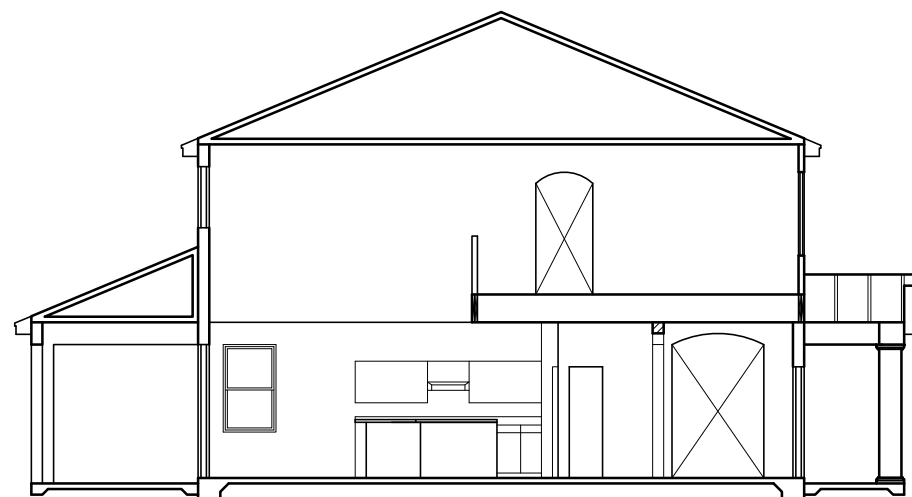
UPPER FLOOR PLAN



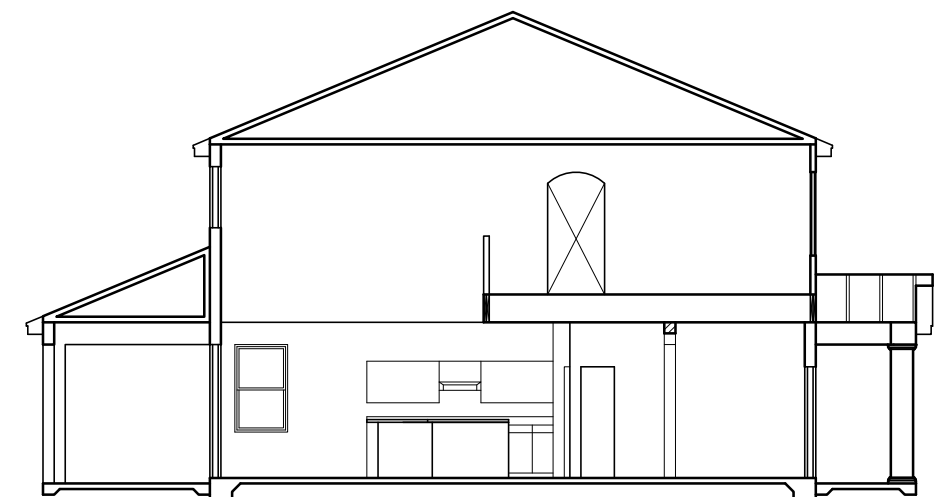
MAIN FLOOR PLAN



A

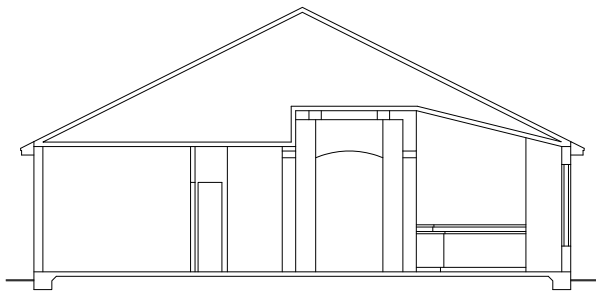
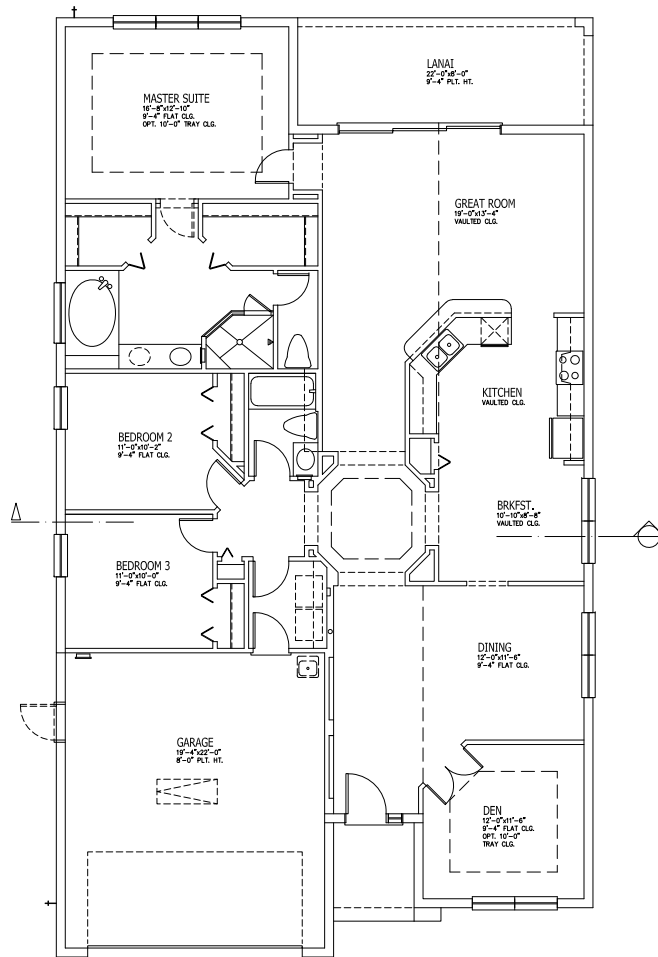


B

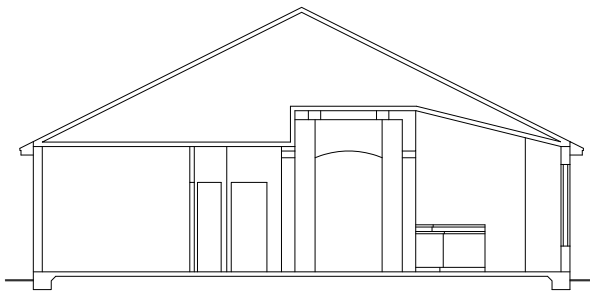


C

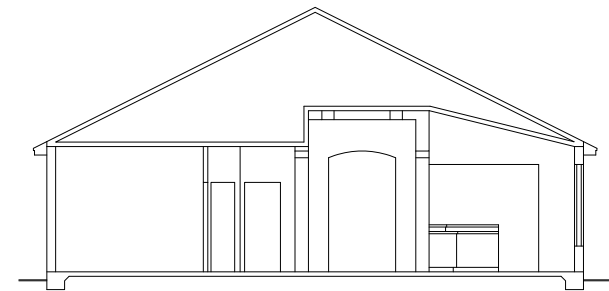
Question #6: SELECT THE CORRECT BUILDING SECTION



A



B

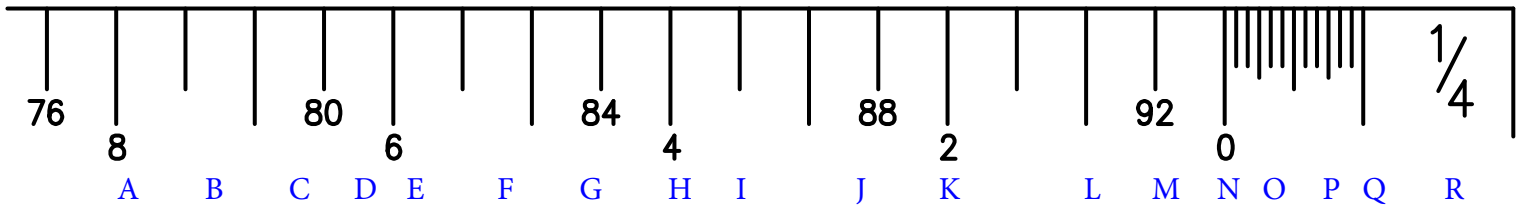


C

Question #7 SELECT THE CORRECT BUILDING SECTION

Question #8

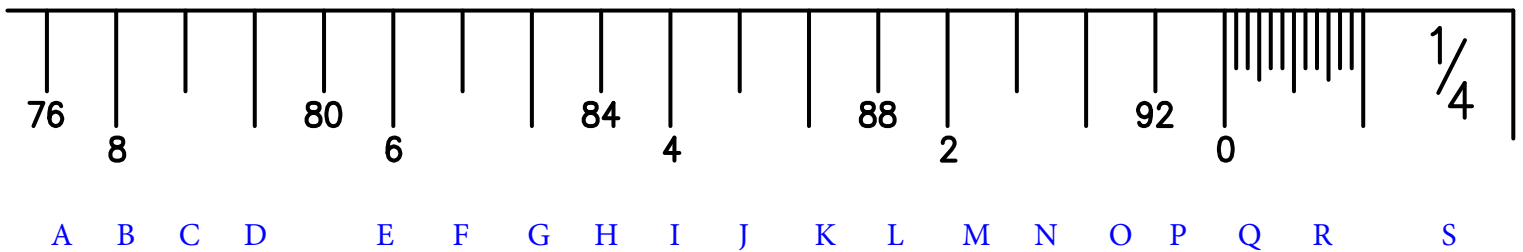
SHOW WHERE 4" WOULD BE ON THIS SCALE



1/4" SCALE SIDE

Question #9

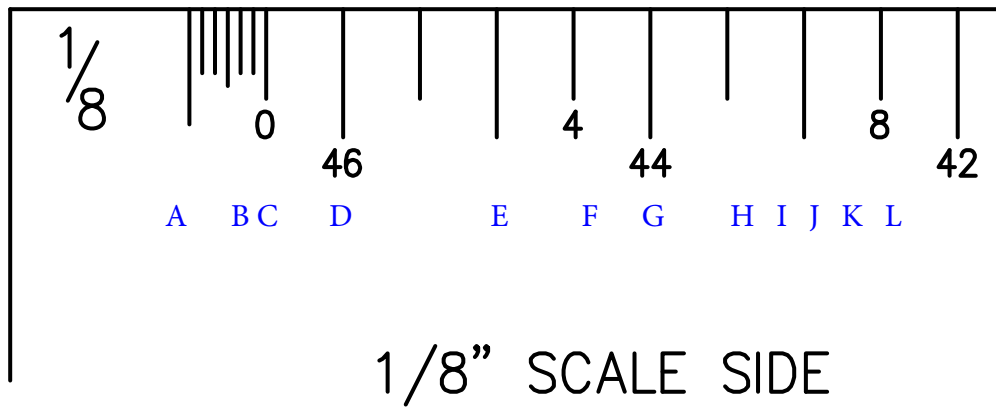
SHOW WHERE 48" WOULD BE ON THIS SCALE



1/4" SCALE SIDE

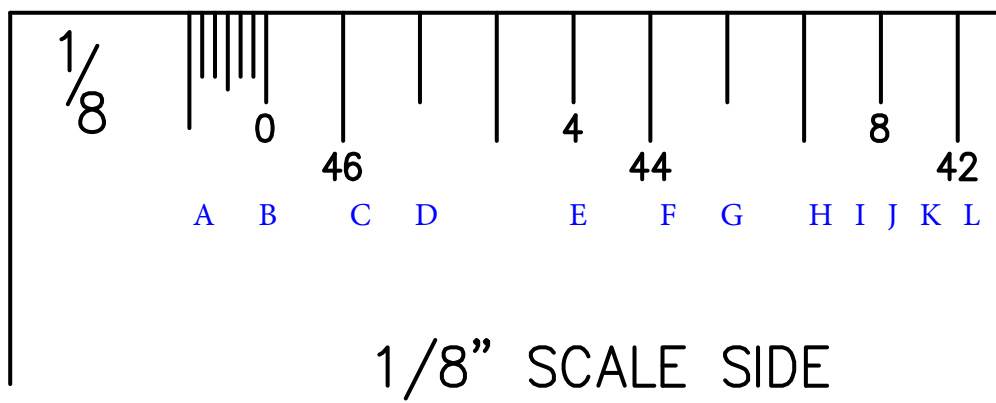
Question #10

SHOW WHERE 4" WOULD BE ON THIS SCALE



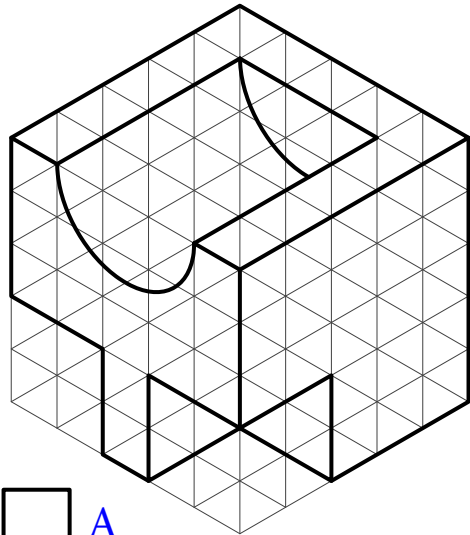
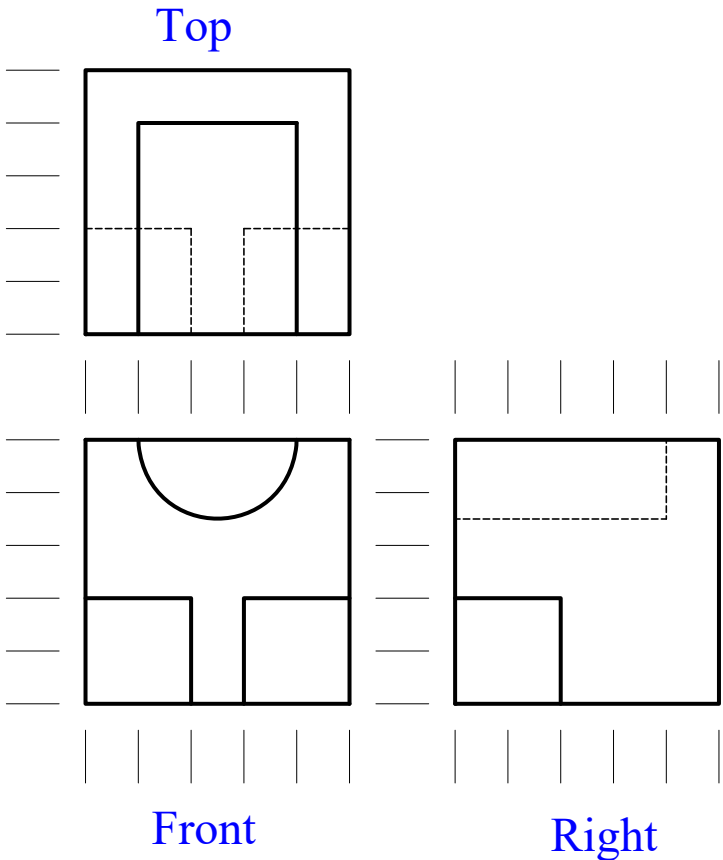
Question #11

SHOW WHERE 24" WOULD BE ON THIS SCALE

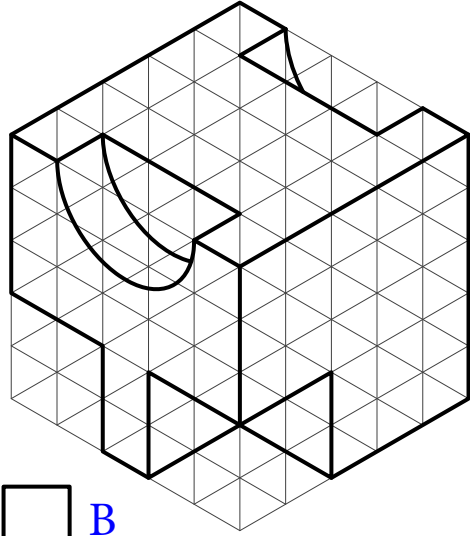


For Questions 12-16, you will be shown, on the left hand side, representations of views of a shape from its top, front, and right sides. On the right, you should select the 3D drawing of the shape, based on the clues shown on the left.

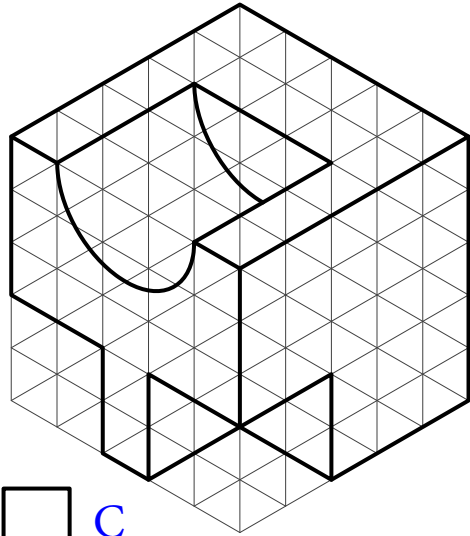
Question #12



A



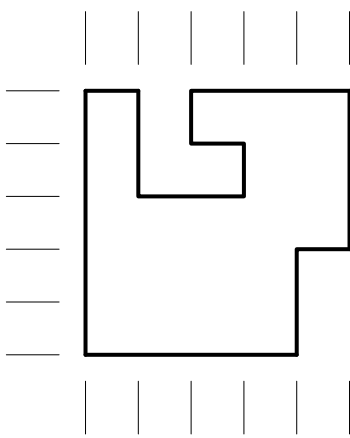
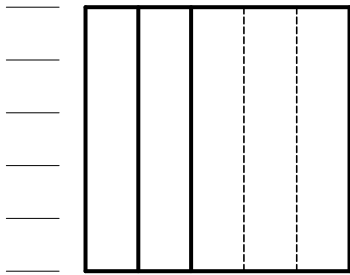
B



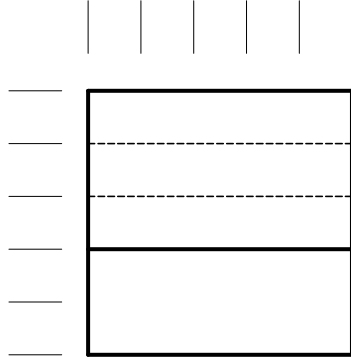
C

Question #13

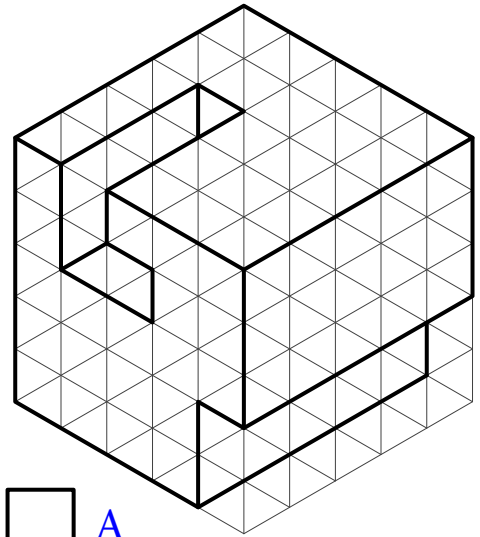
Top



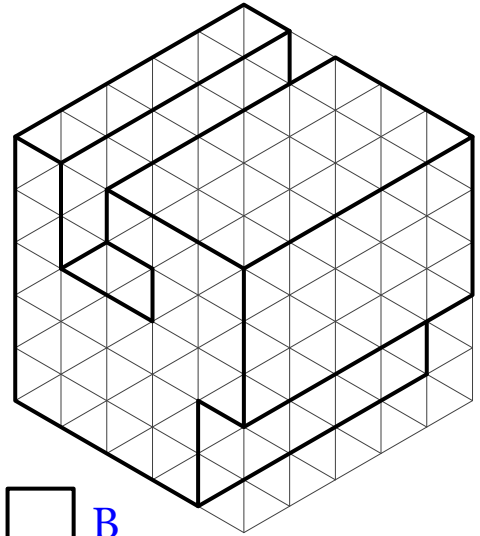
Front



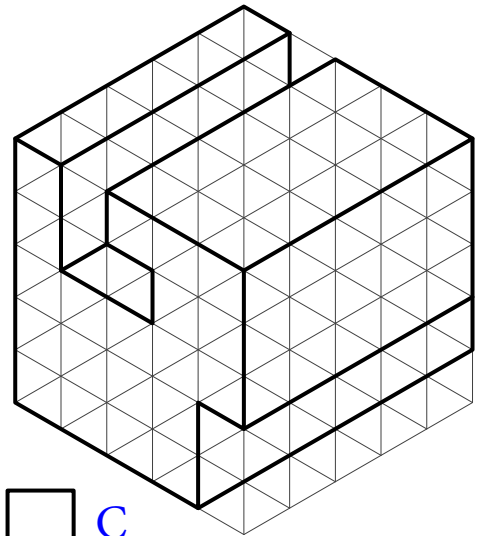
Right



A



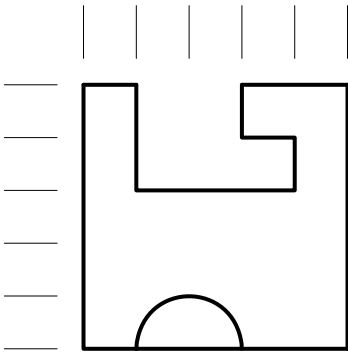
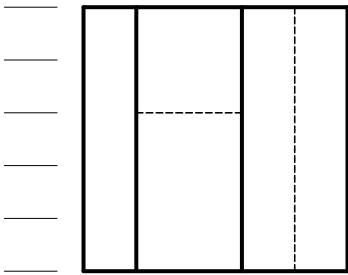
B



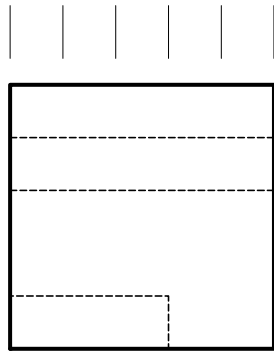
C

Question #14

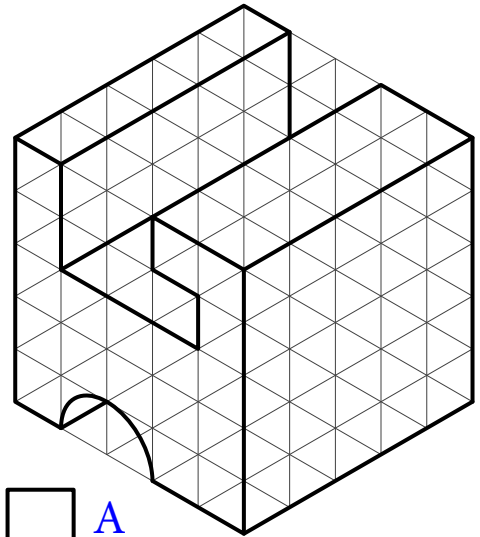
Top



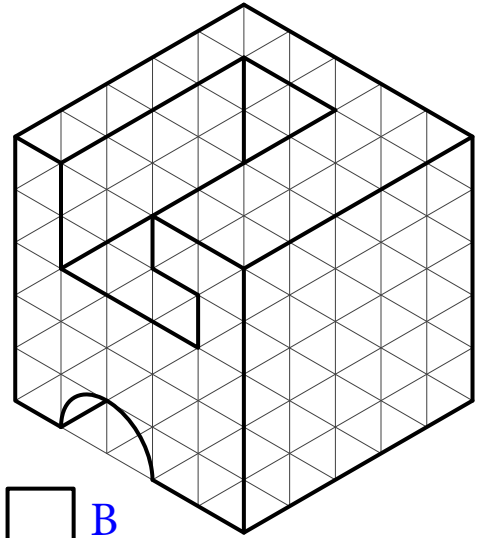
Front



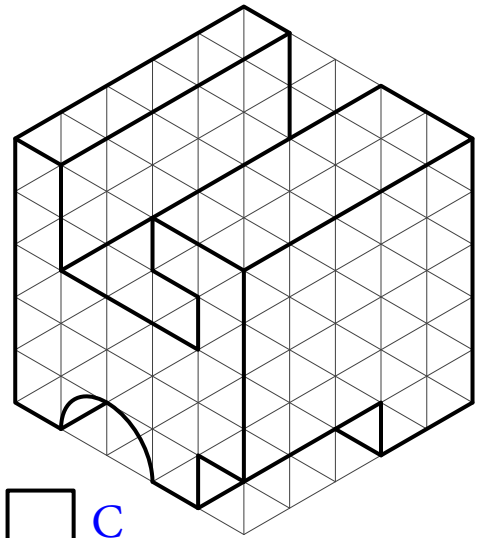
Right



A



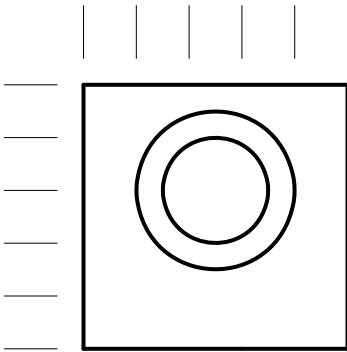
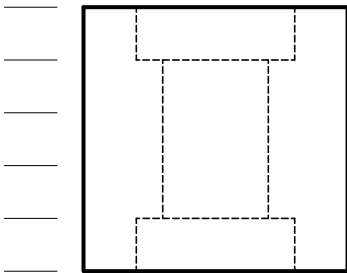
B



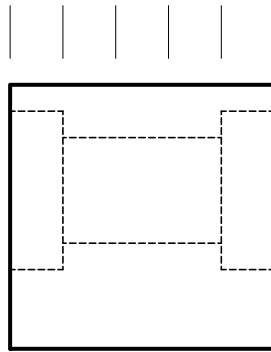
C

Question #15

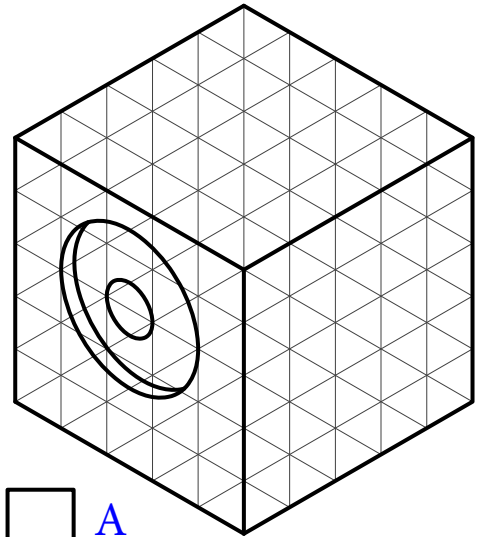
Top



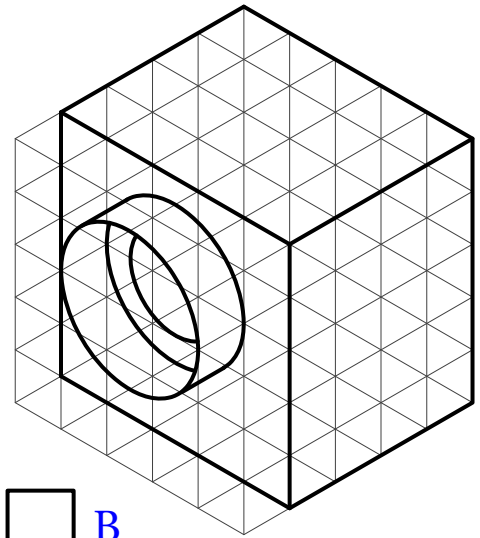
Front



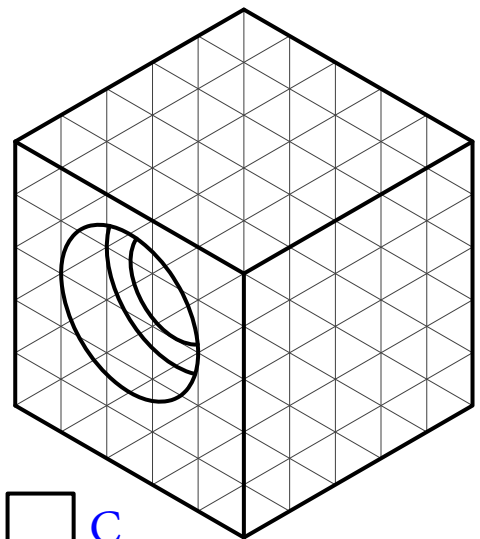
Right



A



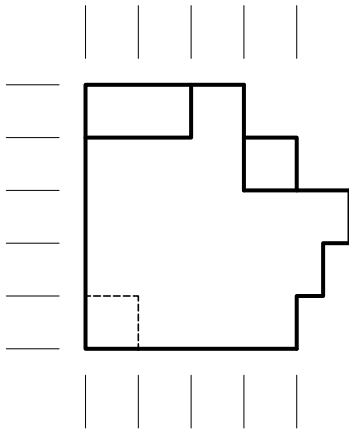
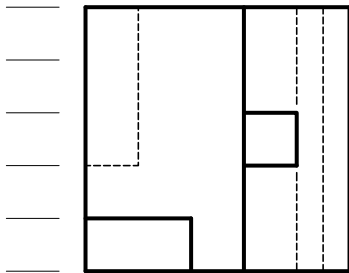
B



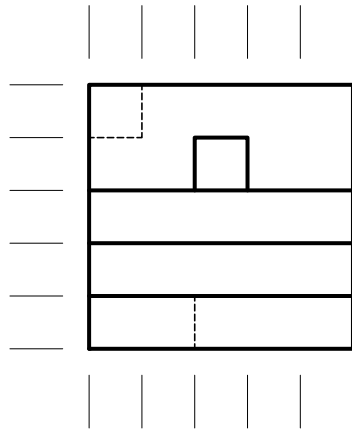
C

Question #16

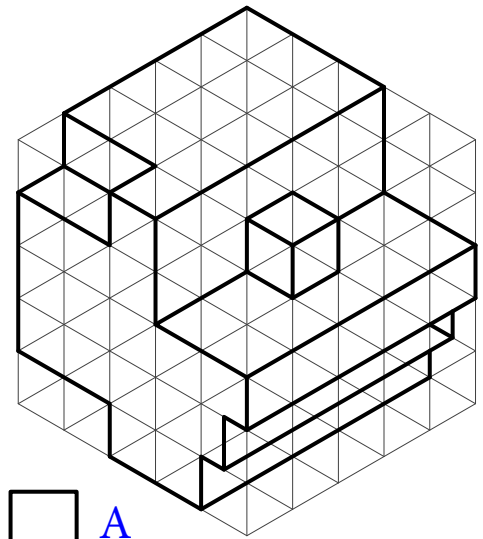
Top



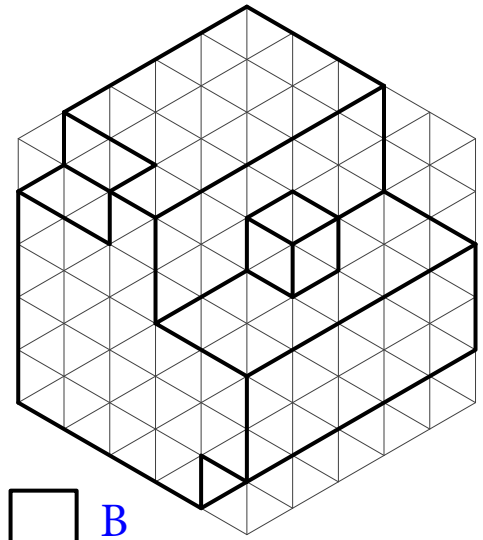
Front



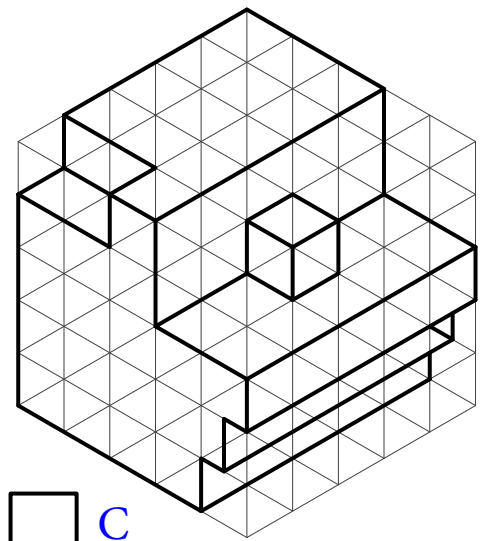
Right



A



B



C