

**Carpenter
Sample Practical Examination
Information for Candidates**

Please note: this document is for sample purposes only. The same sections will be tested on the practical examination day, however, some diagrams and measurements in this document differ from those that will be provided on the practical examination day.

Carpenter Sample Practical Examination Information for Candidates

- The exam will test the practical knowledge and skills required to practice in the trade.
- There are eight (8) sections. The sections will test your abilities to layout, cut, assemble and install projects using various hand and power tools. The projects will be in the following blocks:
 - Planning and Layout
 - Framing
 - Interior Finish
 - Renovations
- The minimum pass for each section is 70%. Any sections failed must be repeated. *Please note: if any one of sections 1, 2, 3 or 8 are failed, all four of these sections must be repeated; however, only sections failed will be marked.*
- Following the practical exam the instructor will record the practical exam results and submit them to Apprenticeship Manitoba.

General Information

DO:

- Arrive for registration at 7:30 a.m.
 - Present to the Examiner at registration:
 - photo identification
 - 'Examination Call Notice' letter from Apprenticeship Manitoba
- Be organized and ready to start the practical exam at 8:00 a.m.
- Bring the tools required to perform and demonstrate all sections of the exam. Please see '**Tools: Required/Optional**' on page 3. All materials and fasteners will be provided.
- Maintain professional conduct and safe work practices throughout the exam.
- Complete each section of the exam within the time limit.

NOTE: at any time throughout the exam the Examiner could ask you questions about your work.

DO NOT:

- Use cell phones during the exam (cell phones must be turned off).
- Assist other candidates during the exam.
- Leave during the exam without permission.

Exam Schedule

7:30 a.m.	Registration, set-up and exam information
8:00	Exam Start
12-12:30 p.m.	LUNCH <i>(it is advisable to bring a lunch)</i>
12:30	Exam Resumes
4:00	Exam Finish

Tools: Required/Optional/Supplied

Tools Required

- Framing square with rafter tables
- Portable circular saw
- Hand saw
- Spirit levels 2' and 4'
- Hammers
- Nail puller
- Nail Set
- Utility knife
- Tape measure (minimum 16 feet)
- Combination square
- Calculator (construction calculator **not** allowed)
- Pencils
- Chalk line
- Grounded Extension Cord (min. 20')
- CSA-certified safety glasses/goggles
- CSA-certified hearing protection
- CSA-certified steel-toed boots

Tools Optional

- Reciprocating saw
- Pry bar/crow bar
- Sliding T-bevel
- Block plane
- Tool belt
- Stair gauges
- Drill and drill index

Tools Supplied

- Table saw
- Power Mitre Saw
- Builders Level
- Tri-Pod
- Surveyor's Rod
- 12" Compass/dividers

Items NOT allowed for the practical examination

- | | |
|--|---|
| <ul style="list-style-type: none"> • Speed square • Laser levels | <ul style="list-style-type: none"> • Construction calculators • Pneumatic tools |
|--|---|

Carpenter Practical Examination

Section Number	Practical Examination Section
1	Wall Framing
2	Window Renovation
3	Interior Trim
4	Surveying Equipment
5	Stairs
6	Rafters (Examiner to assign one of: 6A or 6B or 6C)
7	Paper Layout (Examiner to assign one of: 7A or 7B)
8	Wall Demolition

Marking Scheme

Eight (8) sections are to be completed at the practical examination. Each of the eight sections will have a list of tasks that the Examiner will be looking for in the performance of that section.

The marking scheme will be a 'checkmark' system and will follow the standards as set out in the chart below.

The number of checkmarks (√) required to pass each section (minimum of 70%) is indicated in each section in the following pages.

Candidate's performance of task	Examiner's mark	Description
Meets or exceeds industry standard	√	Candidate shows competency in task or high level of skill and proficiency in task. Performance meets or is above industry standard in preparation, technique, workmanship.
Does not meet industry standard	0	Candidate shows little or no competency in task. Performance is below industry standard in preparation, technique, workmanship.

Section 1: Wall Framing

Instructions:

1. Using blueprint drawing 1A on p. 6, construct a section of framing as directed by the examiner.
2. Stand the wall section and use appropriate bracing to hold it in place.
3. Do not construct the partition or adjacent walls.

Task Criteria:

-
1. Correct wall length.

 2. Placement of studding (o.c. spacing).

 3. Blocking for interior finishes, corner stud configuration.

 4. Correct location of intersecting walls and/or partitions.

 5. Correct location of rough opening.

 6. Correct rough opening dimension for door.

 7. Correct framing details for door openings.

 8. Walls plumbed and braced.

 9. Correct sheathing installation (orientation, fastening, spacing).

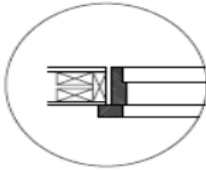
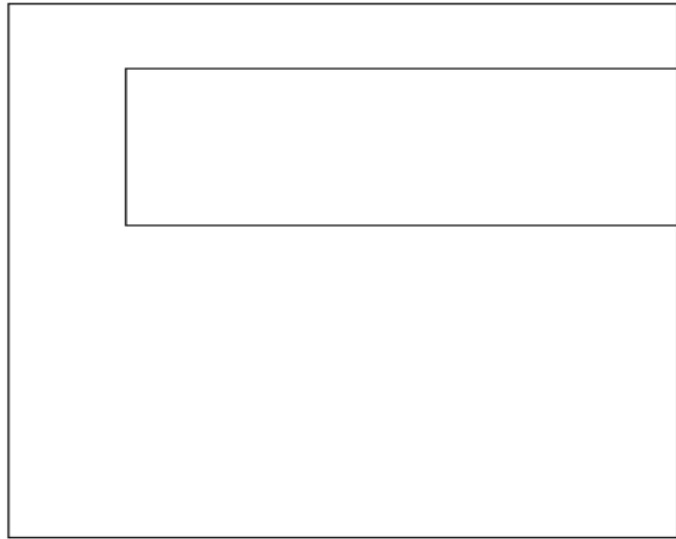
 10. Safety (use of tools and equipment, PPE).

Marks:

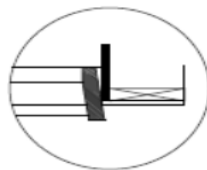
Number of Checkmarks (√)	Description	Result
7-10	Meets or exceeds industry standard	Pass
1-6	Does not meet industry standard	Fail

Section 1: Wall Framing (continued)

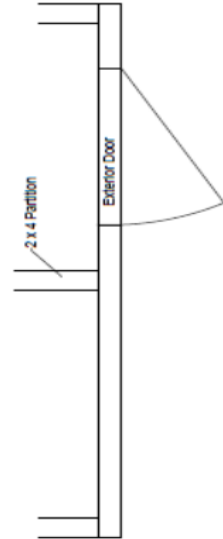
2 x 4 Wall Framing @ 16" O.C. typical
Use precut stud lengths for standard wall height.
Lintel 2 x 4 as per code
Door to be centered in the room
Allow for blocking for interior finishes
allow 1/2" insulation and shim space for rough
openings
All dimensions from framing not including
sheathing
Wall is to be insulated after the framing is done



Typical head and side jamb detail



Typical 2" Sill Detail



Dwg 1A

Section 2: Window Renovation

Instructions:

1. Using blueprint drawing 2A on p. 8, renovate a section of framing for a window.
2. Cut out existing framing and sheathing to accommodate new rough opening.
3. Reframe and reinstall sheathing as necessary for new window.

Task Criteria:

-
1. Mark out window location.

 2. Cutting and safe removal of sheathing.

 3. Cutting and safe removal of studs.

 4. Installation of lintel.

 5. Correct framing details for window opening (trimmers, etc.)

 6. Correct rough opening size (square, plumb, level).

 7. Correct location of rough opening.

 8. Correct number and type of fasteners.

 9. Correct refastening of sheathing and framing.

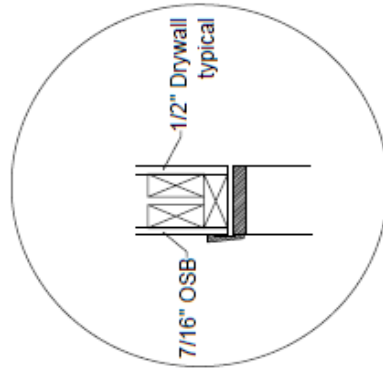
 10. Safety (use of tools and equipment, PPE).

Marks:

Number of Checkmarks (√)	Description	Result
7-10	Meets or exceeds industry standard	Pass
1-6	Does not meet industry standard	Fail

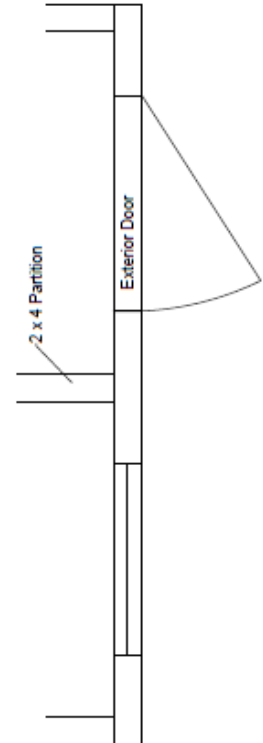
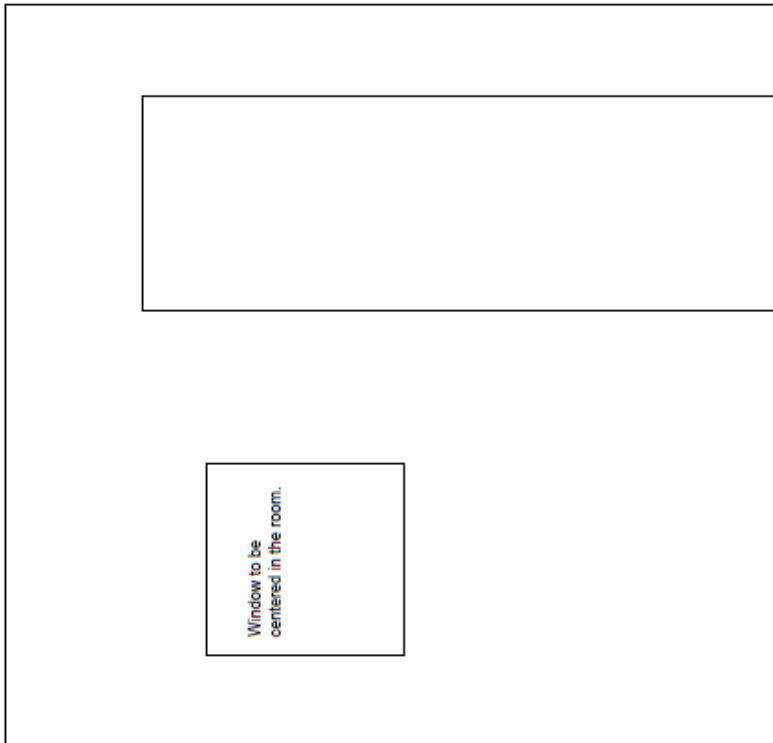
Section 2: Window Renovation (continued)

2 X 4 Wall framing @ 16" O.C. typical
 Use precut stud lengths for standard wall height
 Lintel 2 x 4 as per code
 Door to be centered in the room
 Allow for blocking for interior finishes
 allow 1/2" insulation and shim space for rough openings
 All dimensions from framing not including sheathing



Typical Lintel, Head and side jambs detail.

Dwg 2A



Section 3: Interior Trim

Instructions:

1. Using blueprint drawing 3A on p. 10, construct an interior stain grade window frame for the opening in the wall.
2. Cut and assemble as per plans and specs, install centered into rough opening, shim as needed.
3. Cut and install one set of mitered casing to the OSB side of your window frame.

Task Criteria:

-
1. Size of window frame (length, width, depth).

 2. Quality of frame joints and joint orientation.

 3. Installation of frame (plumb, level, square, centered).

 4. Installation of frame (fasteners, shims).

 5. Casing reveal.

 6. Casing miter joint (glued, gaps).

 7. Casing miter joint (flush, sanded, ready for finish).

 8. Nails set.

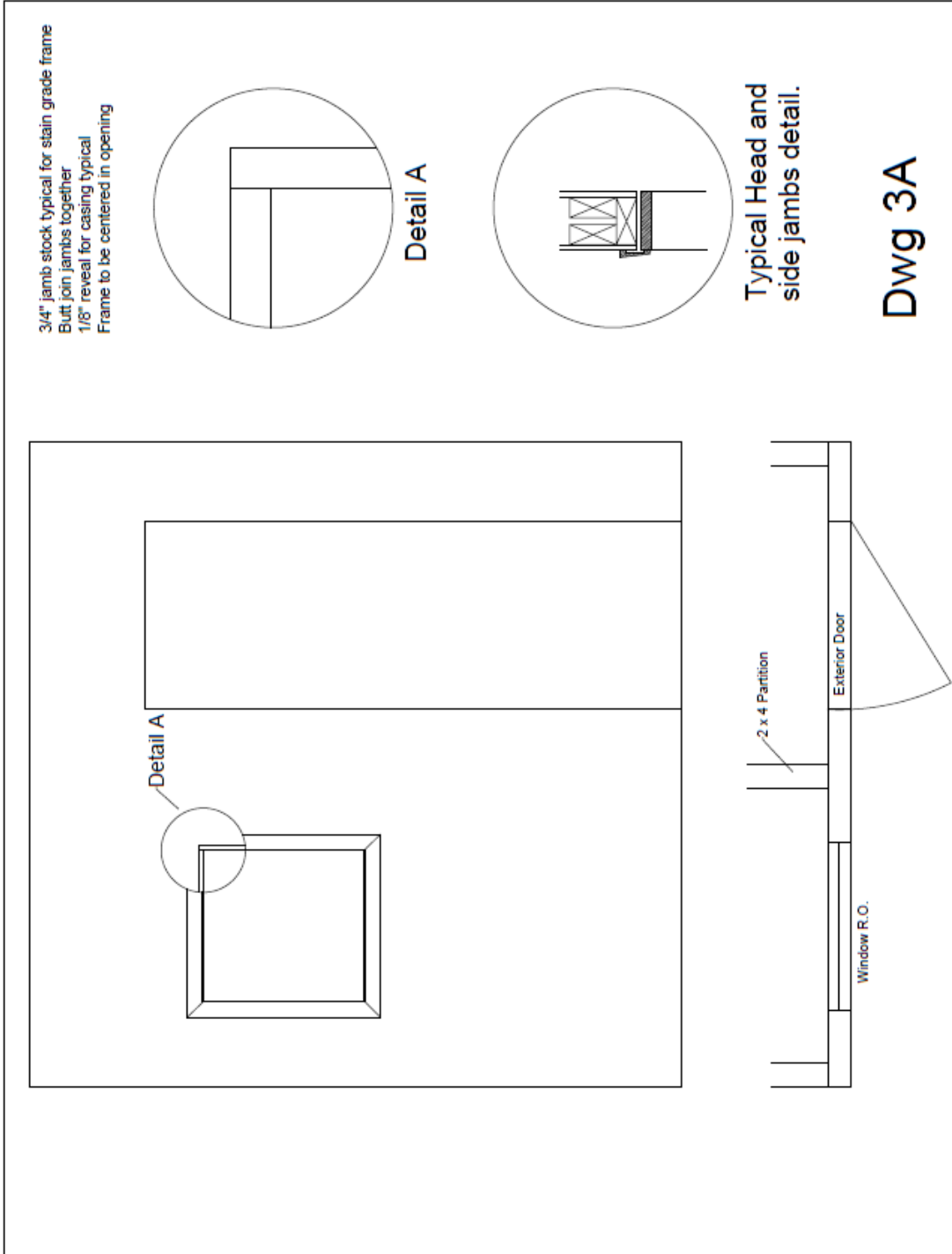
 9. Appearance (splits, gaps, marring, sanding).

 - 10 Safety (use of tools and equipment, PPE).

Marks:

Number of Checkmarks (√)	Description	Result
7-10	Meets or exceeds industry standard	Pass
1-6	Does not meet industry standard	Fail

Section 3: Interior Trim (continued)



Section 4: Surveying Equipment

Instructions:

1. Set up a tripod and builders level to shoot readings from surveyor's rod as directed by the examiner.
2. Take a reading at Benchmark 'A', record your reading in the log provided, Log 1.
3. Establish your height of instrument and record in log.
4. Rotate your instrument and take a reading at Benchmark 'B', record your reading in Log 1.
5. Determine the final elevation at Benchmark 'B', record in Log 1.

Task Criteria:

-
1. Set up tripod and level the instrument.

 2. Back site reading.

 3. Height of instrument.

 4. Fore site reading.

 5. Proper final elevation.

 6. Proper recording in Log 1 (dimension style, correct locations).

 7. Disassembly, removal and storage of instrument and tripod.

 8. Safety (use of tools and equipment, PPE).

Marks:

Number of Checkmarks (√)	Description	Result
6-8	Meets or exceeds industry standard	Pass
1-5	Does not meet industry standard	Fail

Section 4: Surveying Equipment (continued)

Site _____ Date: _____
 Instrument Ser#: _____ Weather: _____
 Observer: _____ Booker: _____

Station	B.S.	H.I.	I.F.S.	F.S.	Elevation	Description
B.M. A					100.00	

Section 5: Stairs

Instructions:

1. Using the specifications below, layout a right hand housed stair stringer.
2. Stringer to sit on subfloor.

Specifications:

- Number of risers:
- Total rise:
- Total run:
- Stringer Stock:
- Riser thickness:
- Nosing Projection:
- Tread thickness:
- Finish floor thickness:
- Wedges:
- Hook:
- Base Board:
- Margin:

Task Criteria:

1. Correct tread rise.
2. Correct tread run.
3. Correct stringer hand laid out.
4. Established gauge line.
5. Tread and riser layout (size, connection, number).
6. Wedges.
7. Baseboard cuts.
8. Floor allowance.
9. Hook.
- 10 Margin.
- 11 Nosing detail.

Marks:

Number of Checkmarks (√)	Description	Result
8-11	Meets or exceeds industry standard	Pass
1-7	Does not meet industry standard	Fail

Section 6A: Rafters
(Common, Hip, Jack)

Instructions:

1. A garage is built (as shown in drawing 6A) to the specifications below.

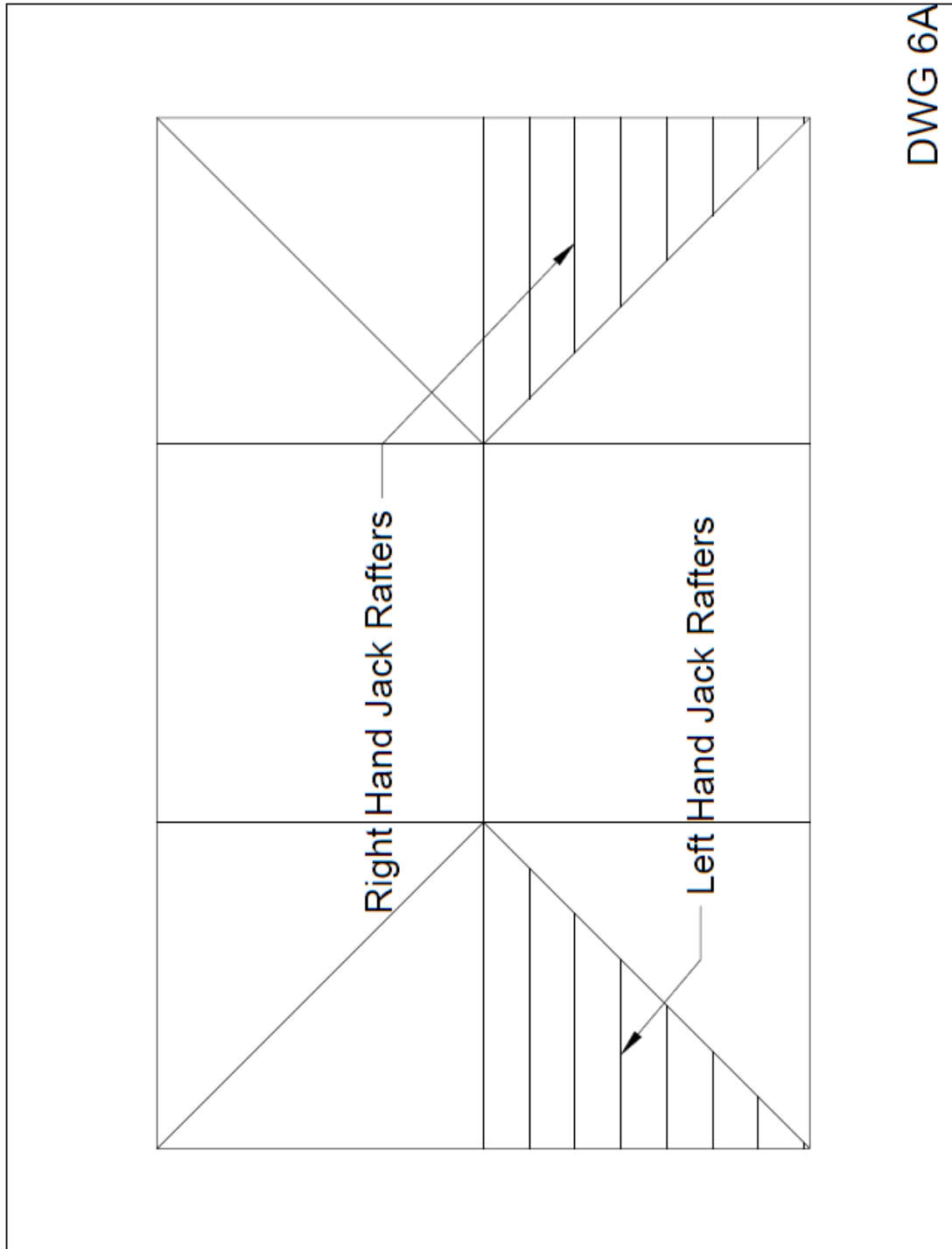
Specifications:

- Outside plate measurements:
- Rise per foot run (*Examiner to circle one*):
- Ridge board:
- Eave (projection):
- Rafters:
- Fascia Board
- Height above plate

The hip rafter to be dropped.

1. On one side and one edge of a 2 x 4, layout pattern for common rafter.
 2. On the same side and edge as common rafter layout, and using the same birdsmouth and rafter tail, layout the complete left hand set of jack rafters.
 3. On one side and edge of a 2 x 4, layout a pattern for a hip rafter (double cheek).
 4. Use black pencil for layouts and indicate with cut marks where the cuts are to be made.
-

Section 6A: Rafters (continued)
(Common, Hip, Jack)



Section 6A: Rafters (continued)
(Common, Hip, Jack)

Task Criteria:**COMMON**

1. Crown side
2. Measure line length rafter tolerance $\pm 1/8$.
3. Measure line length overhang tolerance $\pm 1/8$.
4. Plumb lines
5. Birdsmouth
6. Height above plate
7. Shortening at ridge
8. Shortening at tail
9. Cut lines indicated.
- 10 Safety (use of tools and equipment, PPE)

HIP

11. Measured line length rafter tolerance $\pm 1/8$.
12. Measured line length overhang tolerance $\pm 1/8$.
13. Plumb lines.
14. Shortening at the ridge.
15. Shortening at tail.
16. Side cut lines.
17. Birdsmouth layout.
18. Height above plate.
19. Dropping.

JACK

20. Line length of longest Jack rafter tolerance $\pm 1/8$.
21. Shortening.
22. Side cut line.
23. Plumb lines.
24. Common differences in length of jacks.

Marks:

**Number of
Checkmarks (√)**
17-24
1-16

Description

Meets or exceeds industry standard
Does not meet industry standard

Result

Pass
Fail

Section 6B: Rafters
(Common, Valley Jack, Supporting Valley)

Instructions:

1. An equal pitch projection is to be built to a hip roof as shown in drawing 6B.

Major Roof:

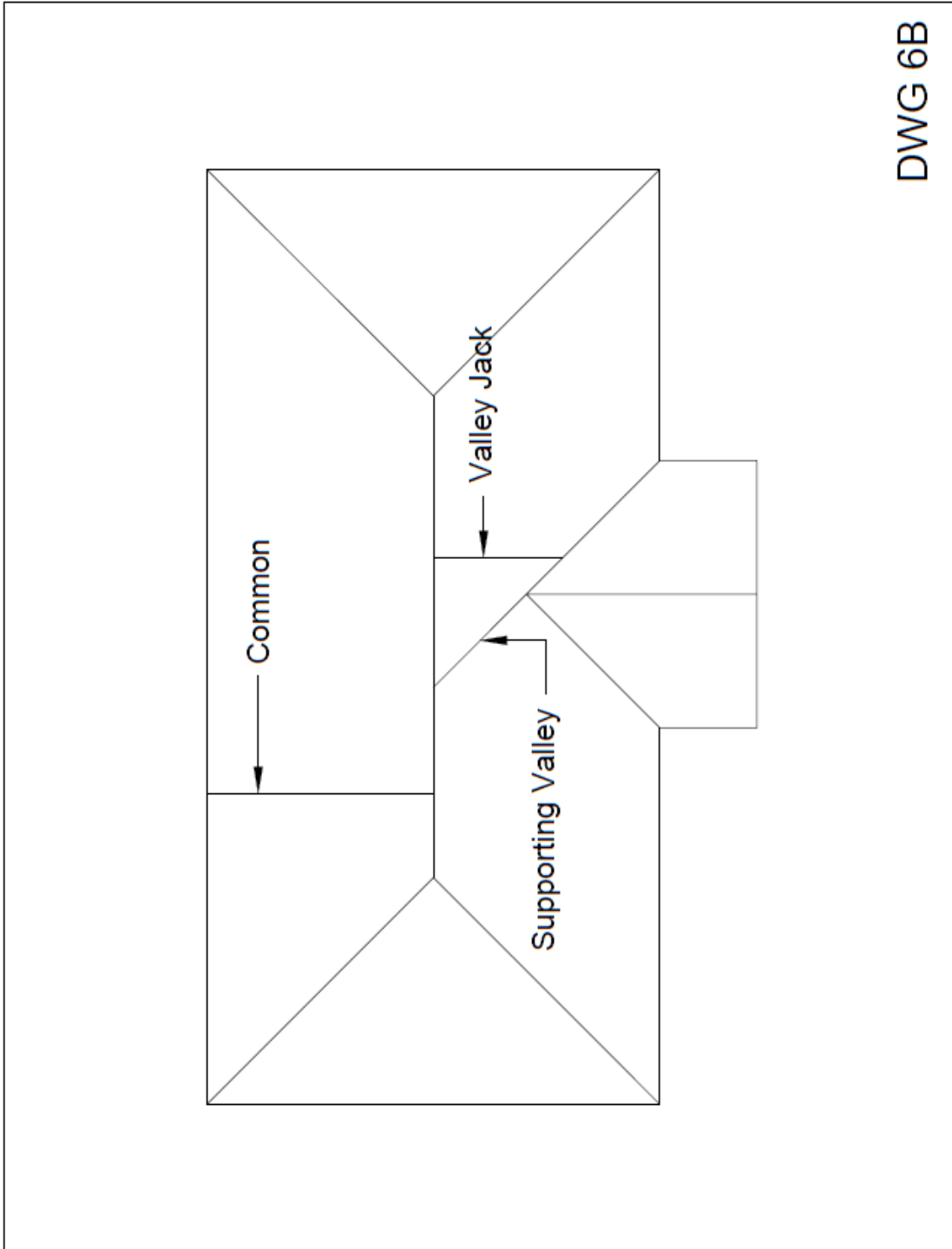
- Outside plate measurements:
- Rise per foot run (*Examiner to circle one*):
- Ridge board:
- Eave (projection):
- Rafters:
- Height of rafters above plate
- Fascia Board

Minor Roof:

- Span
- Length
- Ridge board
- Eave (projection)
- Fascia Board

1. On one side and one edge of a 2 x 4, layout a pattern of a common rafter for the major span.
 2. On the same side and edge, layout the valley jack rafter for the major roof. Use the common rafter ridge layout.
 3. On one side and edge of a 2 x 4, layout the supporting valley rafter.
 4. Use black pencil for layouts and indicate with cut marks where the cuts are to be made.
-

Section 6B: Rafters (continued)
(Common, Valley Jack, Supporting Valley)



DWG 6B

Section 6B: Rafters (continued)
(Common, Valley Jack, Supporting Valley)

Task Criteria:**COMMON**

1. Crown side
2. Measure line length rafter tolerance $\pm 1/8$.
3. Measure line length overhang tolerance $\pm 1/8$.
4. Plumb lines
5. Birdsmouth
6. Height above plate
7. Shortening at ridge
8. Shortening at tail
9. Cut lines indicated.
- 10 Safety (use of tools and equipment, PPE)

VALLEY JACK

11. Measured line length rafter tolerance $\pm 1/8$.
12. Plumb lines.
13. Shortening at the ridge.
14. Shortening at the supporting valley
15. Side cut layout at supporting valley

SUPPORTING VALLEY

16. Measured line length rafter tolerance $\pm 1/8$.
17. Measured line length overhang tolerance $\pm 1/8$.
18. Plumb lines
19. Shortening at the ridge
20. Shortening at the tail
21. Side cut lines at ridge
22. Side cut lines at the tail
23. Birdsmouth layout
24. Height above plate

Marks:

Number of Checkmarks (✓)
17-24
1-16

Description

Meets or exceeds industry standard
Does not meet industry standard

Result

Pass
Fail

Section 6C: Rafters
(Common, Valley Cripple Jack, Shortened Valley)

Instructions:

1. An equal pitch projection is to be built to a hip roof as shown in drawing 6C.

Major Span:

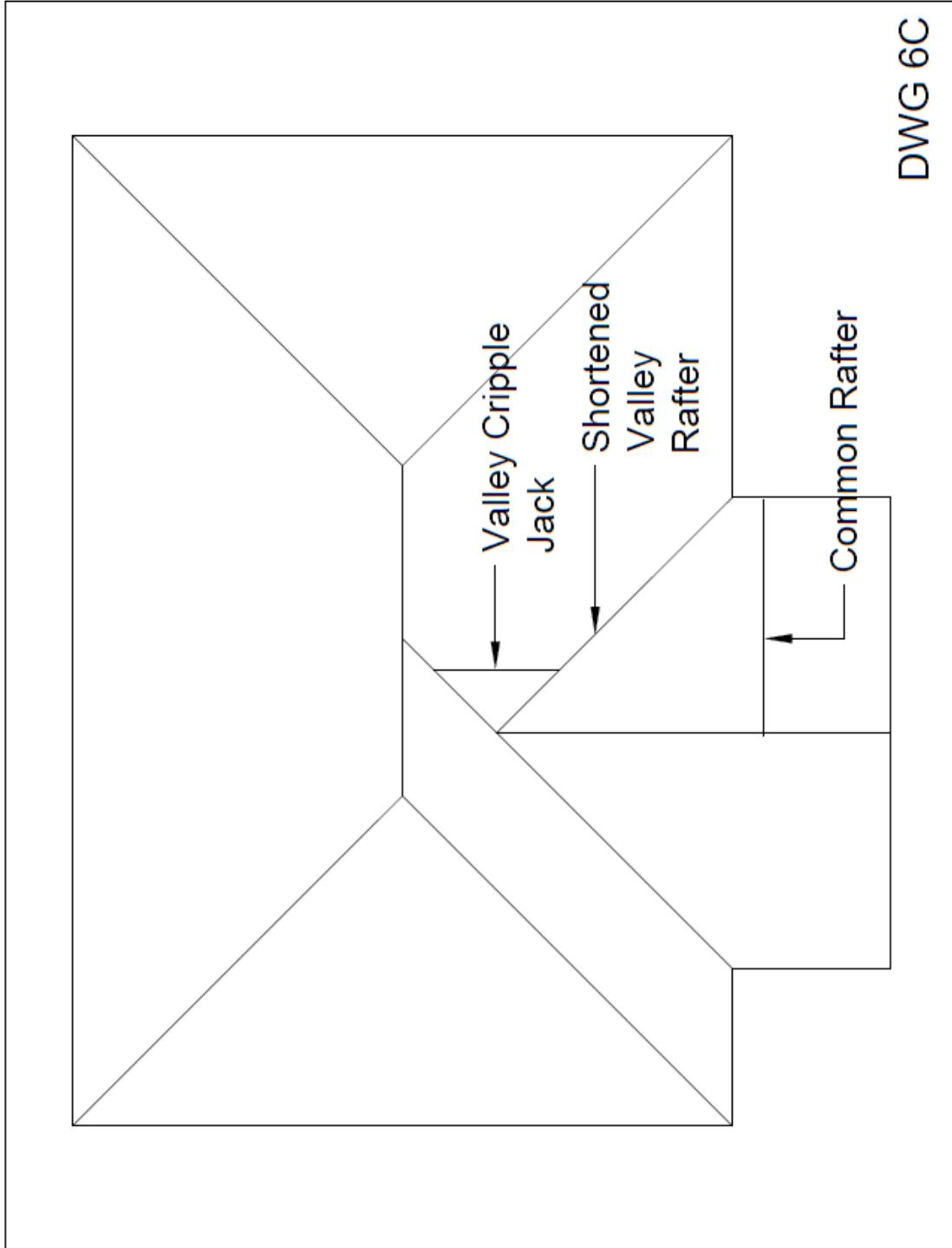
- Outside plate measurements:
- Rise per foot run (*Examiner to circle one*):
- Ridge:
- Eave (projection):
- Rafters:
- Height of rafter above plate
- Fascia Board

Minor Span:

- Span
- Length
- Ridge board
- Eave (projection)
- Fascia Board

1. On one side and one edge of a 2 x 4, layout a pattern of a common rafter for the minor span.
 2. On one side and edge of a 2 x 4, layout the shortened valley rafter.
 3. On the other side and edge, layout the valley cripple jack rafter.
 4. Use black pencil for layouts and indicate with cut marks where the cuts are to be made.
-

Section 6C: Rafters (continued)
(Common, Valley Cripple Jack, Shortened Valley)



Section 6C: Rafters (continued)
(Common, Valley Cripple Jack, Shortened Valley)

Task Criteria:**COMMON**

1. Crown side
2. Measure line length rafter tolerance $\pm 1/8$.
3. Measure line length overhang tolerance $\pm 1/8$.
4. Plumb lines
5. Birdsmouth
6. Height above plate
7. Shortening at ridge
8. Shortening at tail
9. Cut lines indicated.
- 10 Safety (use of tools and equipment, PPE)

VALLEY CRIPPLE JACK

11. Measured line length rafter tolerance $\pm 1/8$.
12. Plumb lines.
13. Shortening at valley rafters
14. Side cut at supporting valley rafter
15. Side cut at shortened valley rafter

SHORTENED VALLEY

16. Measured line length rafter tolerance $\pm 1/8$.
17. Measured line length overhang tolerance $\pm 1/8$.
18. Plumb lines
19. Shortening at the valley
20. Shortening at the tail
21. Side cut lines at valley
22. Side cut lines at the tail
23. Birdsmouth layout
24. Height above plate

Marks:

**Number of
Checkmarks (√)**
17-24
1-16

Description

Meets or exceeds industry standard
Does not meet industry standard

Result

Pass
Fail

Section 7A: Paper Layout: Octagon

Instructions:

1. Lay out on a 24" x 24" paper layout board an octagon measuring (*Examiner to circle one*):

15"

16"

17"

18"

19"

20"

Task Criteria:

1. Layout correct number of sides.

2. Correct angle.

3. Overall size $\pm 1/16"$

4. Length of each side $\pm 1/16"$

Marks:

Number of Checkmarks (✓)	Description	Result
3-4	Meets or exceeds industry standard	Pass
1-2	Does not meet industry standard	Fail

Section 7B: Paper Layout: Hexagon

Instructions:

1. Lay out on a 24" x 24" paper layout board a hexagon inside a circle with a diameter measuring
(*Examiner to circle one*):

15"

16"

17"

18"

19"

20"

Task Criteria:

1. Layout correct number of sides.

2. Correct angle.

3. Overall size $\pm 1/16"$

4. Length of each side $\pm 1/16"$

Marks:

**Number of
Checkmarks (✓)**

Description

Result

3-4

Meets or exceeds industry standard

Pass

1-2

Does not meet industry standard

Fail

Section 8: Wall Demolition

Instructions:

1. Dismantle your wall frame and window.
2. Safely remove all fasteners and stack your materials for reuse.
3. Clean up your work area and store your tools.

Task Criteria:

-
1. Wall safely dismantled in correct order.

 2. Fasteners removed.

 3. Materials salvaged for future use.

 4. Materials stacked and stored properly.

 5. Work area cleaned up and waste discarded.

 6. Safety (use of tools and equipment, PPE).

Marks:

Number of Checkmarks (√)	Description	Result
5-6	Meets or exceeds industry standard	Pass
1-4	Does not meet industry standard	Fail