

Carpentry Level One



Hand and Power Tools 27103-13





Objectives

Identify the hand tools commonly used by carpenters.

- a. Describe the safe use and maintenance of levels.
- b. Describe the safe use and maintenance of squares.
- c. Describe the safe use and maintenance of planes.
- d. Describe the safe use and maintenance of clamps.
- e. Describe the safe use and maintenance of hand saws.



Performance Task

1. Demonstrate the safe and proper use of the following hand tools:
 - Level
 - Square
 - Clamp
 - Saw

Kickoff Activity

- Working with your instructor-provided hand tool or set of hand tools, research the tool and identify local building supply stores that stock the tool(s). Collect information on the tool(s), including price ranges and customer reviews.



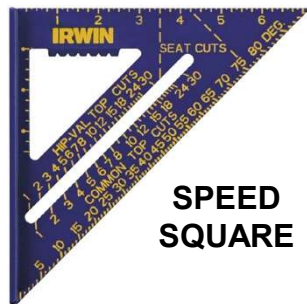
Section 1.1.0

- Leveling tools and instruments
 - Carpenter's level
 - Line level
 - Water level
 - Builder's level
 - Auto level
 - Transit level
 - Leveling rod
 - Spirit level

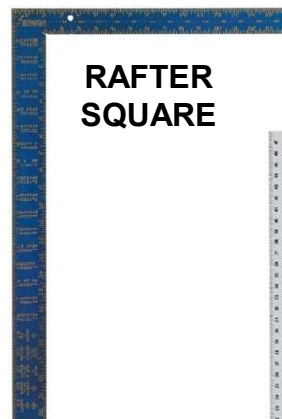


Section 1.2.0

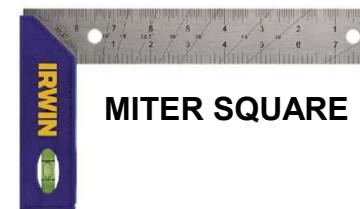
- Establishing squareness is an essential part of carpentry, so it is important to recognize the different types and uses of squares. Identify the squares pictured.



SPEED SQUARE



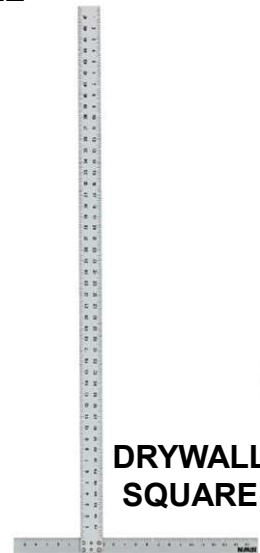
RAFTER SQUARE



MITER SQUARE



FRAMING SQUARE



DRYWALL SQUARE



COMBINATION SQUARE



SLIDING T-BEVEL

Section 1.3.0

- Planes are used to remove excess wood from surfaces and edges.
- Common types of planes include:
 - Block plane
 - Jack plane
 - Smoothing plane
 - Jointer plane



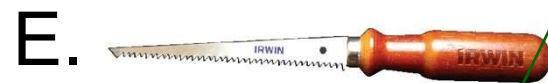
Section 1.4.0

- Common clamps used in carpentry
 - C-clamp
 - Hand-screw clamp
 - Locking C-clamp
 - Spring clamp
 - Quick clamp
 - Web (strap) clamp
 - Pipe clamp



Section 1.5.0

- Match the saws pictured on the left with their most appropriate cuts on the right.



1. Curved and scroll cuts in moldings
2. Cuts smooth joints
3. Cuts for stringers
4. Cuts metal
5. Rough cuts in gypsum board
6. Cuts trim

Section 1.5.0

- Saw maintenance
 - Clean the blade with a fine emery cloth.
 - Apply a light coat of paraffin wax to a cleaned blade.
 - Always lay a saw down gently.
 - Have the saw sharpened by an experienced sharpener.
 - Don't let saw teeth come in contact with stone, concrete, or metal.



Wrap Up

In this modified game of JEOPARDY![®], identify the best tool for each situation that the instructor presents. Remember to present your answer in the form of a question.

Next Lesson: Power Tools, Part One
Review Sections 2.0.0–2.2.5

