

# EXTENSION LADDERS

## IDENTIFY

Extension ladders can be dangerous tools. Workers have been killed and injured from falls after losing their balance and powerline contact. Climbing a ladder is not as easy as it sounds. Most ladder injuries occur when getting on or off a ladder.

## COMMUNICATE AND CONTROL

Choosing the right ladder for the job is very important. On a construction project, it must meet the requirements of Grade 1 under the CSA Standard Z11-12. Extension ladders are designed to give workers access and egress to an elevated working platform where other means of access and egress are not practical.

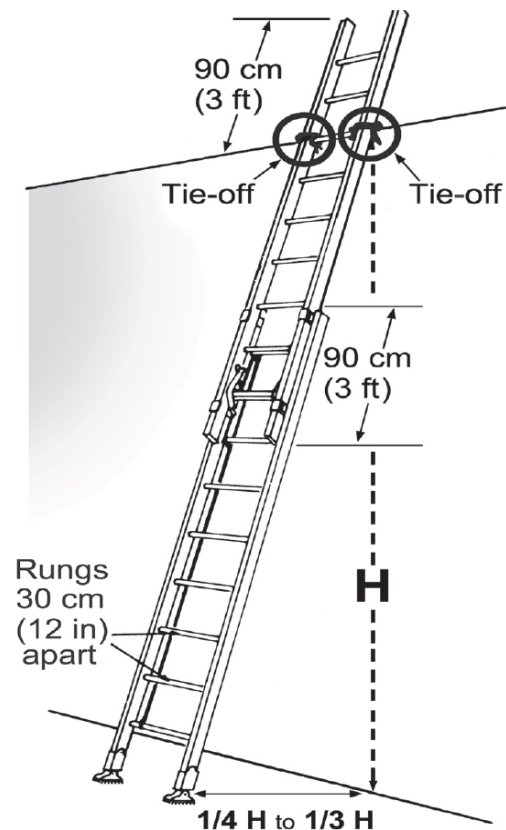
According to the Workplace Safety and Health Regulation Part 13.14, extension ladders must be equipped with locks that hold all sections of the ladder in place while extended.

The ladder must not exceed 14.6 metres in length if it consists of two sections, and not exceed 20 metres in length if it consists of more than three sections. No single section of a ladder should exceed nine metres in length.

Some key things to remember while using an extension ladder:

- Check the ladder for damage or defects:
  - Before you set it up.
  - After it has been used somewhere else by other workers.
  - After it has been left somewhere for a long time.
- Set the ladder on a firm, level base. If the base is made of soft, loose, or wet material, clear it away or stand the ladder on a mud sill.
- Never erect extension ladders on boxes, carts, tables, or other unstable objects. Never stand them up against flexible or movable surfaces.
- Set the ladder up at a safe angle — one foot out for every three or four feet up, depending on length.
- When the ladder is set up, there should be a clear space of at least 15 cm (six inches) behind each rung for the front of your foot to fit.
- When the ladder is fully extended, sections must overlap at least 90 cm (three feet).

- Stand no higher than the fourth rung from the top.
- Don't carry tools, equipment, or material in your hands while climbing. Use a hoist line or gin wheel for lifting and lowering.
- Tie off or otherwise secure the top and bottom of the ladder. Keep areas at the top and bottom clear of debris, scrap, material, and other obstructions.
- Clean mud, snow, and other slippery substances off your boots before climbing.
- When climbing up or down, always face the ladder and maintain three-point contact.
- Be very careful when erecting extension ladders near live overhead powerlines. Never use metal or metal-reinforced ladders near electrical wires or equipment.
- Wherever possible, use extension ladders only for access — not as work platforms.

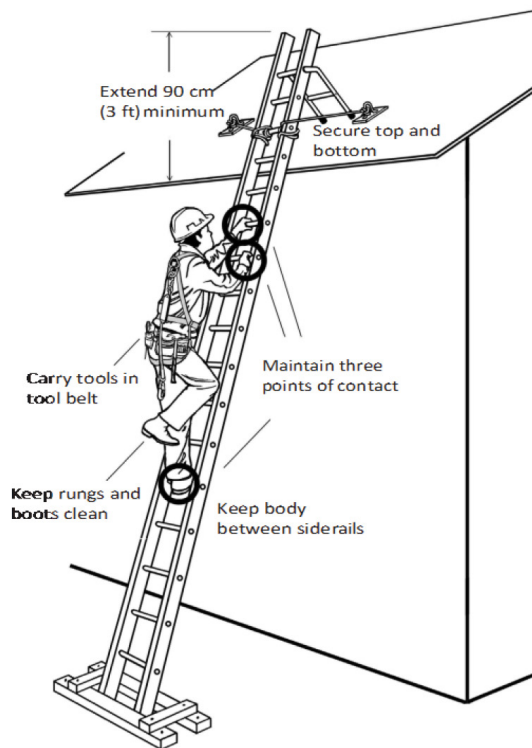


## FACTS AND TIPS

### Three-point contact

To use ladders safely, always maintain three points of contact. That means two hands and one foot, or two feet and one hand on the ladder at all times.

- Moving quickly often results in only two-point contact. You often have to make a conscious effort to maintain three-point contact.
- Break three-point contact only when you reach the ground or a stable platform.
- Tie off or secure the top and bottom of the ladder to prevent movement.
- Put both hands firmly on the rungs before stepping onto a ladder.
- Keep your centre of gravity between the side rails. Don't lean out on either side.
- Keep both feet on the ladder when standing on it. Never straddle the space between a ladder and another object.
- Don't carry tools, equipment, or material in your hands while climbing. Use a tool belt for small tools and a hoist line or gin wheel for lifting and lowering larger items.



## THE QUIZ

1. The ideal ratio for a ladder is:  
a) 4:1  
b) 3:2  
c) 4:2  
d) 5:1
2. Can workers carry a bucket safely up an extension ladder while maintaining three-point contact?  
YES \_\_\_\_\_ NO \_\_\_\_\_
3. How far should the top of the ladder extend above the access point?  
a) One foot  
b) Two feet  
c) Three feet  
d) Four feet
4. Ladders should be secured at the top and bottom to prevent movement:  
TRUE \_\_\_\_\_ FALSE \_\_\_\_\_
5. If an extension ladder consists of only two sections, it should not exceed what length?  
a) 15 metres  
b) 14.6 metres  
c) 12.8 metres  
d) 20 metres
6. Ladders should be inspected for defects before use:  
TRUE \_\_\_\_\_ FALSE \_\_\_\_\_

1. a; 2. NO; 3. c; 4. TRUE; 5. b; 6. TRUE

ANSWERS: