



Answer key

Choose the appropriate device (I-V) for each of the situations shown (A-E):

A = III

B = I

C = IV

D = II

E = V

or

or

or

B = V

D = IV

E = I

When will the ladder tip over?

1. In which direction is this ladder more stable?

In direction **B**

2. When will this ladder become unstable?

As shown in **B**

Situations at work – Is safe working possible?

Please decide, whether a safe manner of working is provided in the images shown below and please state a reason.

A Yes No

Reason: Both answers are possible. Note: Stepladders can be used up to the third highest step, but there the center of gravity is higher. If arms are raised the center of gravity will be even higher.

Just a marginally dislocation of the center of gravity to the side will lead to the loss of stability of the ladder.

The ladder will then tip over. Therefore an urgent recommendation: either use wheeled scaffolding or a mobile elevating work platform.

B Yes No

Reason: The parcel is light weight (500 g), not bulky and can be easily transported on a ladder.

Any tool or equipment carried on a ladder should not exceed 10 kg. This parcel can be easily held in one hand while descending the ladder whilst the other hand is used to cling onto the side rail.

C Yes No

Reason: It is not permissible to surmount a more elevated location, e. g. a garage roof from a stepladder. Preferably a leaning ladder is to be utilized which should jut out at least one meter above the exit point.

D Yes No

Reason: When climbing onto a ladder appropriate footwear should be worn. Slippers provide no safety features at all. Particularly while climbing onto the steps or descending the ladder there is a high risk of slipping. Therefore it is advisable to wear slip proof sturdy shoes.



Answer key

Situations at work – Is safe working possible?

Please decide, whether a safe manner of working is provided in the images shown below and please state a reason.

E Yes No

Reason: The stepladder is being misused as a leaning ladder. Since the feet of the ladder are not evenly on the ground they might slip away easily. Furthermore the ladder stringer is not built to withstand this kind of strain. Ladders have to be used properly; i. e. a stepladder may only be used as a stepladder.

F Yes No

Reason: A ladder should only be used by one person at a time.

G Yes No

Reason: With the spatial situation given here the person on top of the ladder needs to drill sideways. Depending on the power input there is a high risk that the ladder might tip over. Therefore the second person on the ground is holding onto the side rails to keep the ladder stable.

H Yes No

Reason: Stepping onto topmost step of a stepladder is forbidden due to a lack of safe footing. It is more advisable to use a platform ladder with a heavy duty work platform.

I Yes No

Reason: Before climbing onto a stepladder one must verify whether the spreaders are tight respectively locked in place.

J Yes No

Reason: Stepping onto the penultimate step of a stepladder is forbidden. The ladder used in this situation is too short for the intended activity.

K Yes No

Reason: While standing on a ladder only limited activities shall be performed. An additional threat to this situation might be caused through the equipment and due to hazardous substances used for cleaning purposes. The recoil of the high-pressure cleaner could be so strong, that standing and keeping up on the ladder is impossible.

L Yes No

Reason: Ladders are to be installed only on even and safe ground. Side rails might sink into unfortified ground soil. Ladder feet are to be protected against sinking, tipping and slipping. In this case place a board under the ladder's feet to provide firm footing.