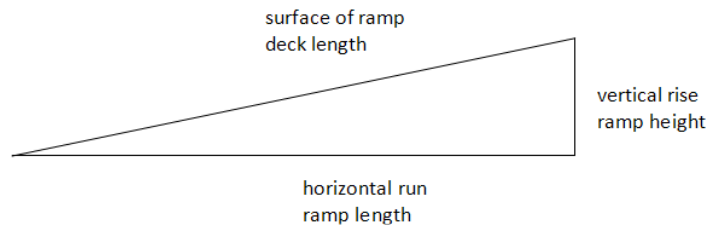


## ADA Requirements for Wheelchair Ramps

Title III of the Americans with Disabilities Act (Public Law 101-336) prohibits discrimination on the basis of disability in “places of public accommodation and commercial facilities.” Title III outlines minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility. For wheelchair ramps, Title III lists the following requirements.

The least possible slope shall be used for any ramp. The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for an run shall be 30 inches. (Title III, Section 4.8.2)



1. What ratio of side lengths in a right triangle determines the slope of the ramp?
2. What does a slope of 1:12 mean in terms fo the relationship between the ramp height and the ramp length?
  - a. What does this ratio become in decimal form?
3. The ramp height is 1.25 feet and the ramp length is 15 feet.
4. The ramp height is 1 foot 9 inches and the ramp length is 25 feet.
5. The ramp height is 27 inches and the ramp length is 26 feet.

For the ramp length (horizontal run) given in each of the following problems:

- Sketch a diagram of the ramp and label it
  - Use the ratio of 1 inch of rise to 12 inches of run to determine the ramp height
  - Use the Pythagorean Theorem to determine the length of the ramp’s surface (hypotenuse).
6. Ramp length is 24 feet.

Ramp height = \_\_\_\_\_

Deck length = \_\_\_\_\_

Sketch:

7. Ramp length is 30 feet.

Ramp height = \_\_\_\_\_

Deck length = \_\_\_\_\_

Sketch:

Using a slope of 1:16, sketch a diagram of each ramp and then determine the ramp length and deck length for the given ramp height.

8. Ramp height is 1 inch.

Ramp height = \_\_\_\_\_

Deck length = \_\_\_\_\_

Sketch:

9. Ramp height is 1 foot 6 inches.

Ramp height = \_\_\_\_\_

Deck length = \_\_\_\_\_

Sketch:

10. Ramp height is 2 feet 3 inches.

Ramp height = \_\_\_\_\_

Deck length = \_\_\_\_\_

Sketch:

11. Are the ramps in problems 8-10 in compliance with ADA requirements?

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