# What Are Circulation Space Requirements?

Worksheet

Circulation space requirements set minimum corridor, stair, and doorway widths based on occupant load, using an egress-width formula (W = N f) so the widest point of the path can safely clear everyone in an emergency.

## Questions

1. A corridor serves 200 occupants at a width factor of 5 mm/person. What is the required width?

A) 500 mm
B) 1000 mm
C) 1500 mm
D) 2000 mm

2. Why do exit stairs usually require a wider width factor per person than a level corridor?

A) Stairs are cheaper to build
B) Descending stairs is slower and higher-risk in an emergency
C) Stairs never carry occupant load
D) Code ignores stairs

3. What happens if the calculated width (N f) is smaller than the code's absolute minimum corridor width?

A) Use the calculated width anyway
B) Use the code's absolute minimum width
C) Average the two
D) Ignore both and use 1000 mm

4. Which of these is an example of circulation space?

A) A structural column
B) A corridor connecting offices to an exit stair
C) A load-bearing wall
D) A window unit

5. A corridor serves 150 occupants and the code width factor is 5 mm per person. What corridor width is required?

6. An exit stair serves 300 occupants with a stair width factor of 8 mm per person. Find the minimum stair width.

7. A lobby corridor serves 60 people at 5 mm/person, but code sets an absolute minimum corridor width of 1100 mm. What width is used?

8. Define: What is circulation space?

9. Define: What is the egress-width formula?

10. Define: What sets the minimum corridor width, even for low occupant loads?

# Answer Key

1. B) 1000 mm - W = 200 5 = 1000 mm.

2. B) Descending stairs is slower and higher-risk in an emergency - Slower, higher-risk movement on stairs means codes assign a larger per-person width factor.

3. B) Use the code's absolute minimum width - The code-mandated absolute minimum always applies as a floor, even if occupant load math gives a smaller number.

4. B) A corridor connecting offices to an exit stair - Circulation space is the network of paths - corridors, stairs, ramps - that move people through a building.

5. W = N f W = 150 5 W = 750 mm

6. W = N f W = 300 8 W = 2400 mm

7. W = N f W = 60 5 = 300 mm Compare to code minimum: 1100 mm > 300 mm Use the code minimum: 1100 mm

8. The corridors, stairs, ramps, and lobbies that move occupants through a building and out during an emergency.

9. W = N f - required width equals occupant count times the code's width factor per person.

10. Building codes set an absolute minimum width (often around 1100 mm) regardless of occupant count.