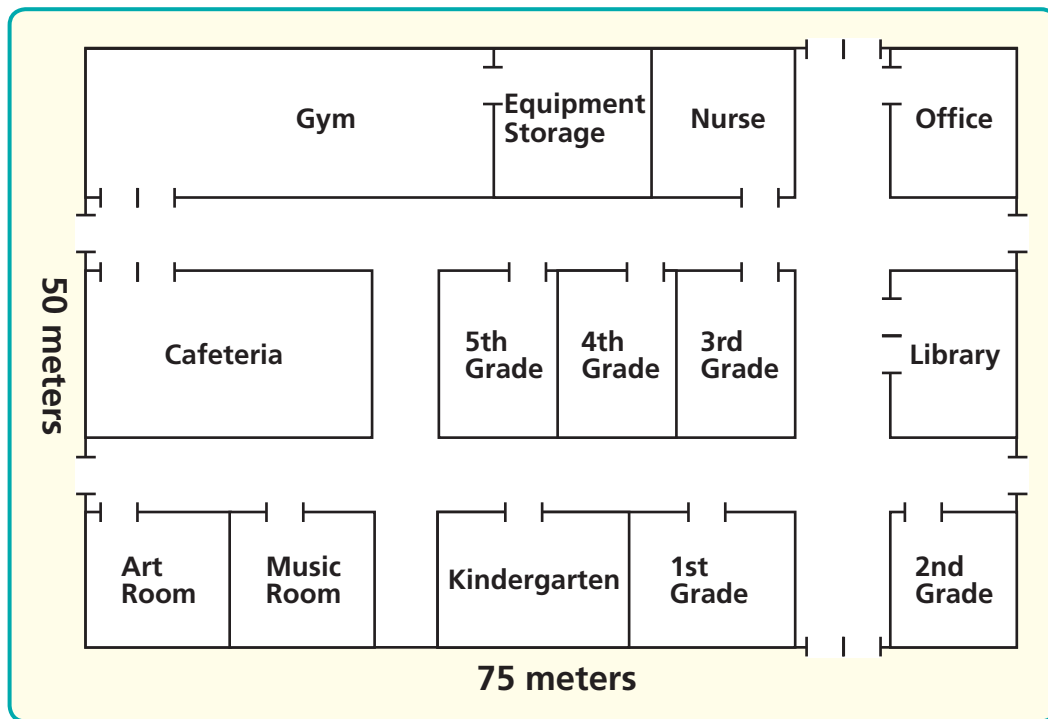


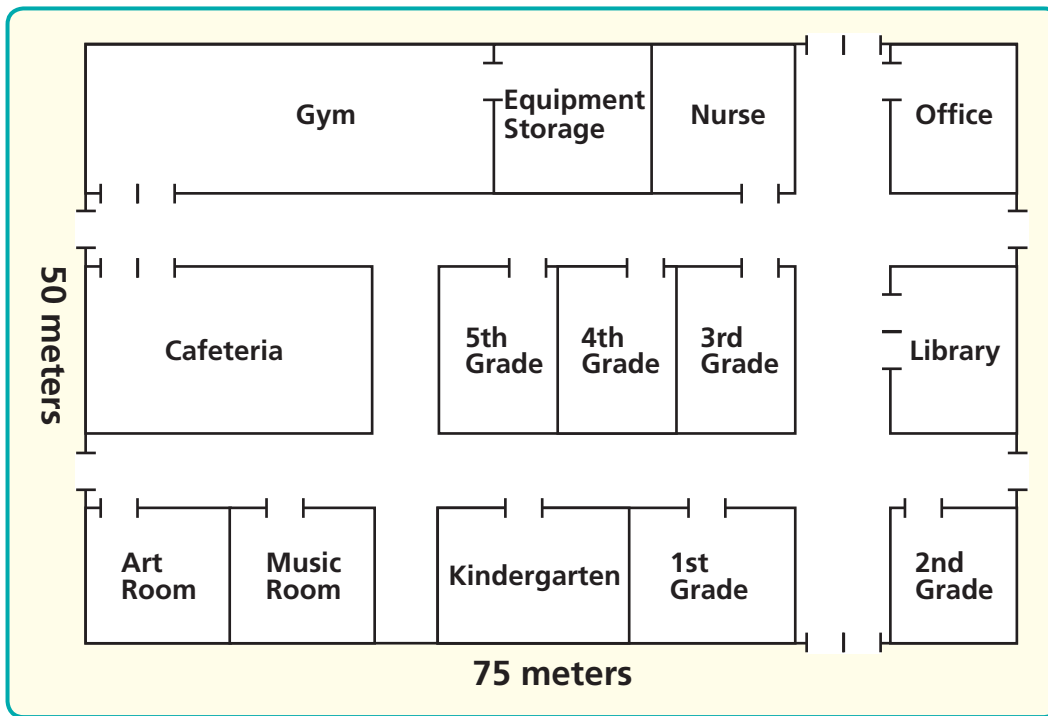
Designing a School

NCTM Standards 1, 3, 4, 6, 7, 8, 9, 10



Use this school's floor plan to answer the questions below.

- 1 Which room has the largest area? _____
- 2 Which grade's classroom has the smallest area? _____
- 3 One wall in the office is 15 meters long and another is 10 meters long. Including the door, what is the office's perimeter? _____ meters
- 4 One wall of the cafeteria is 20 meters long and another is 15 meters long. What is the area of the cafeteria's floor? _____ sq m
- 5 The back wall of the 3rd, 4th, and 5th grade classrooms is actually one long 35-meter wall. The side walls are each 15 meters long. Approximate the area of the 5th grade classroom's floor. about _____ sq m
- 6 Approximate the perimeter of the 4th grade classroom. about _____ meters



This year, the kindergarten class has many more students than the 1st grade class, so the wall separating the two classes is being moved 5 meters to make the kindergarten classroom bigger. The classrooms were the same size to begin with.

- 7 If the old perimeter of the kindergarten classroom was 55 meters, what is the new perimeter? _____ meters
- 8 What is the new perimeter of the first grade class room? _____ meters
- 9 The long wall in the kindergarten classroom is now 22.5 meters in length. What is the new area of the floor of the kindergarten classroom? _____ sq m
- 10 What is the new area of the floor of the first grade classroom? _____ sq m

11 Challenge Estimate the total perimeter of all the hallways. _____ meters

12 Challenge Estimate the total area of the floor space of all the hallways. _____ sq m