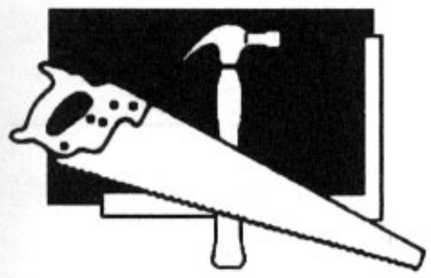


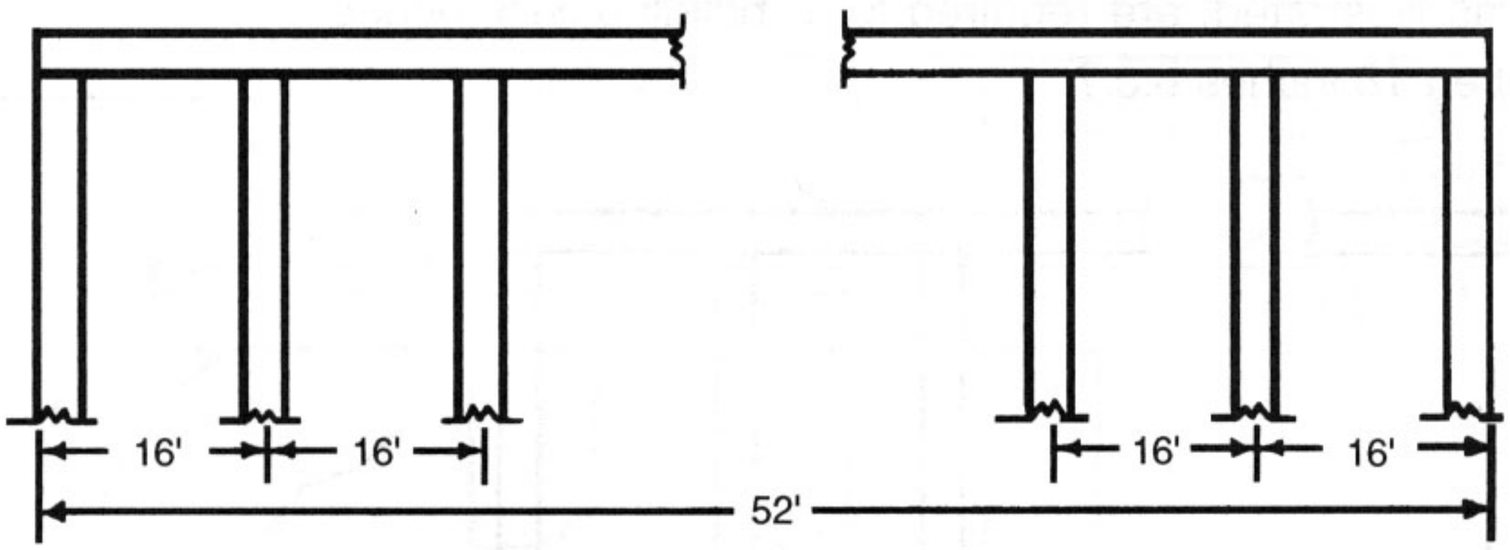
Unit 4 DIVISION OF WHOLE NUMBERS

PRACTICAL PROBLEMS

Divide the following quantities:

1. 846 inches ÷ 6 = _____
2. 8,916 pounds ÷ 6 = _____
3. 15,553 ÷ 2 = _____
4. 6,916 ÷ 14 = _____
5. 3,434 centimeters ÷ 34 = _____
6. $26,334 ÷ 77 = _____
7. 3,976 ÷ 142 = _____
8. 26,104 grams ÷ 26 = _____
9. 217,124 millimeters ÷ 206 = _____
10. How many pieces of lumber 36 inches long can be cut from a piece of lumber 190 inches long? (Do not allow for saw kerfs.) _____
11. How many hours are needed to lay 902 square feet of subflooring at the rate of 82 square feet per hour? _____
12. One person can apply 24 square feet of siding per hour. At the same rate, how long does it take a crew of 6 to put on 11,952 square feet of siding? _____
13. How many hours does it take to install 3,192 square feet of batt-type insulation at the rate of 152 square feet per hour? _____
14. How many joists spaced 16 inches o.c. (on center) are required for a floor 624 inches long? _____

Note: Add one joist for a starter.



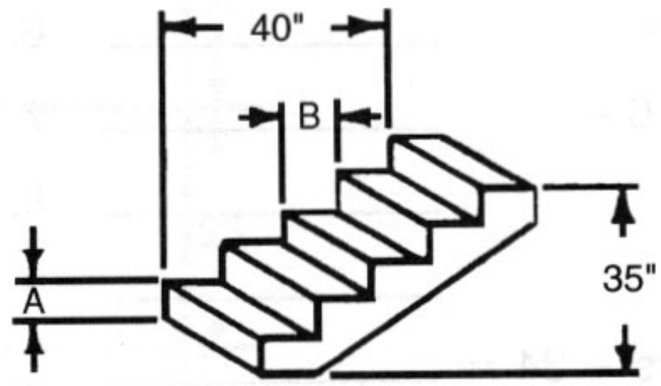
15. Find the number of studs spaced 16 inches o.c. required for a load-carrying partition 768 inches long. _____

    Note: Add one stud for a starter.

16. A common gable roof is 34 feet long. How many rafters spaced 2 feet o.c. are required for one side of the roof? _____

    Note: Add one rafter for a starter.

Note: Use this illustration for problems 17 and 18.



17. The illustration shows a short flight of steps. Dimension A is the height or rise of each step. Determine dimension A. _____

18. Determine the run of each step as indicated by dimension B in the illustration. _____

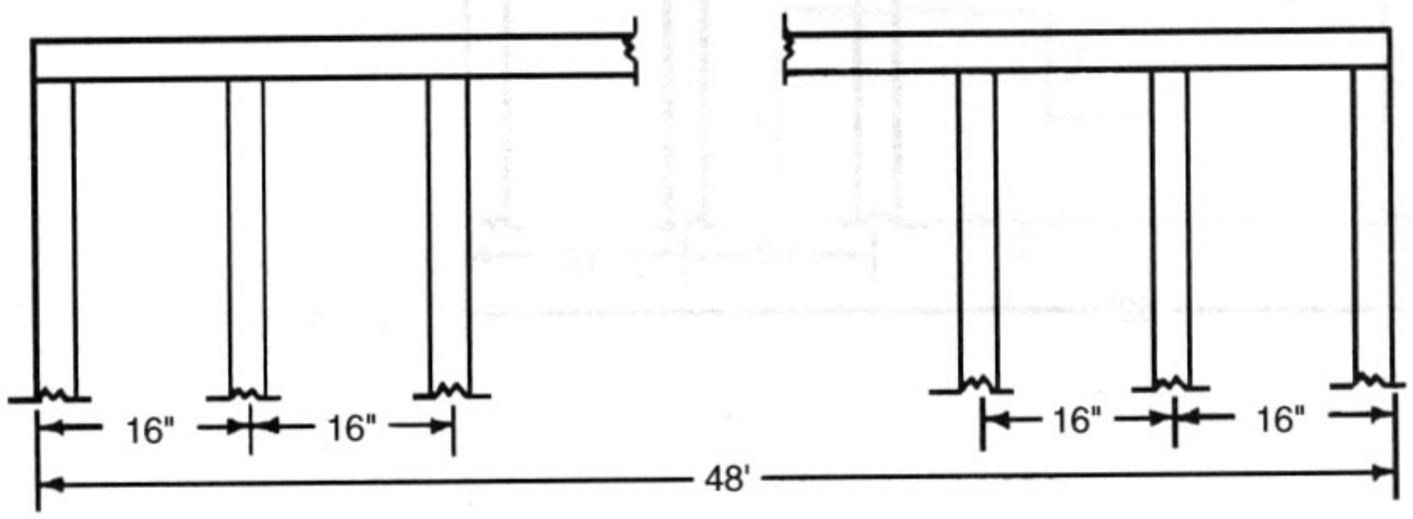
19. A gable roof is 72 feet long. Trusses are spaced 2 feet o.c. How many trusses are needed for the roof? _____

    Note: Add one truss as a starter.

20. The main stairway in a building has 17 risers. If the story height (distance from top of the first-story floor to the top of the second floor) is 119 inches, what is the height of each riser? _____

Note: For problems 21–25, allow for only one set of joists.

21. How many floor joists, as illustrated, are required for a building 576 inches long if the joists are placed 16 inches o.c.? _____



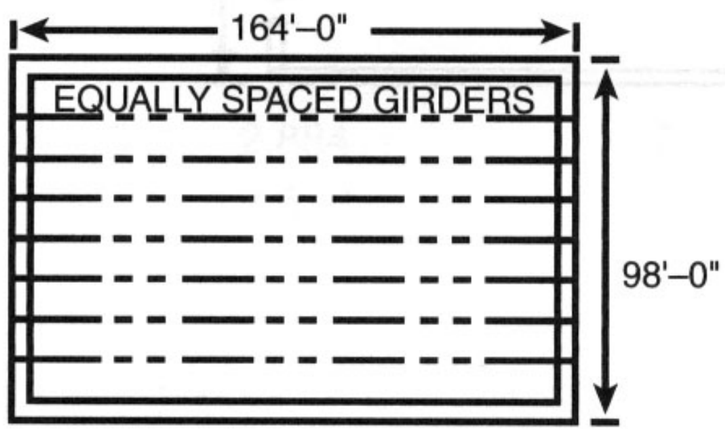
22. How many joists, spaced 16 inches o.c., are needed for a building that is 432 inches long? _____

23. How many joists, spaced 16 inches o.c., are required for a building that is 720 inches long? _____

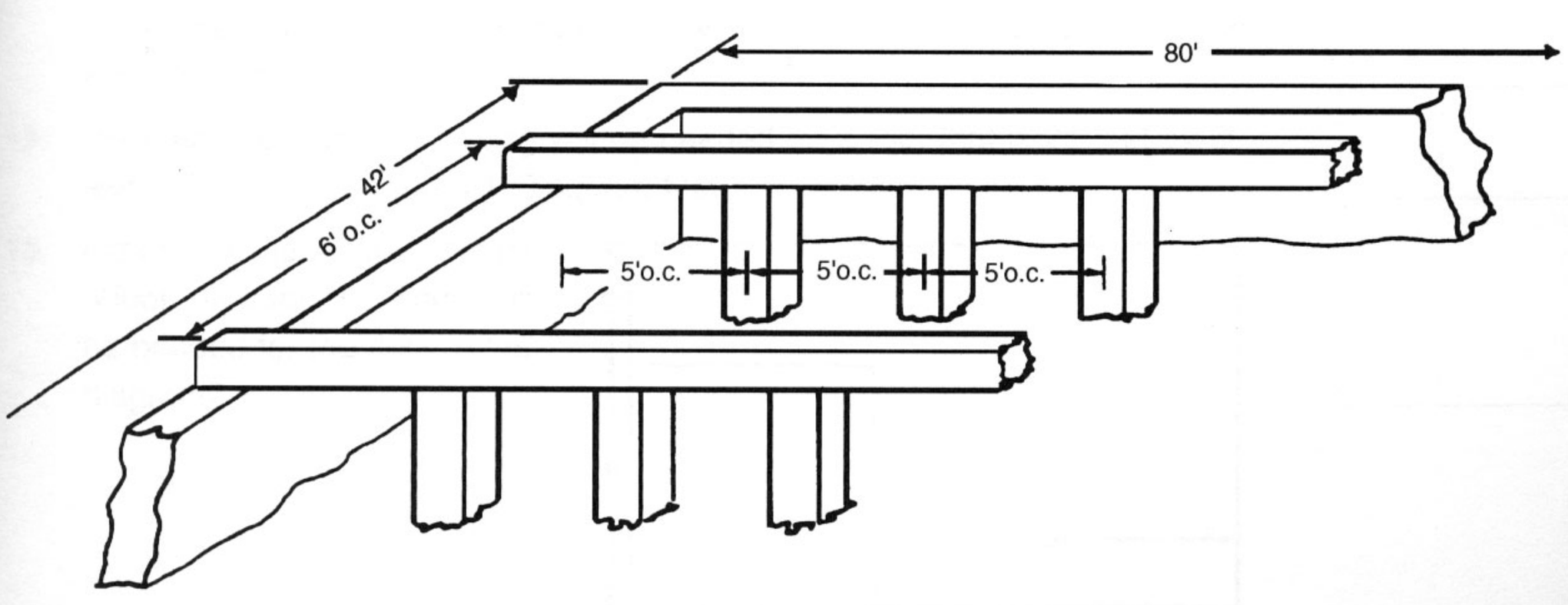
24. The specifications for a building state that the joists are to be placed 2 feet o.c. How many floor joists are required if the building is 116 feet long? _____

25. A warehouse is 116 feet long. To support the heavy load on the floor, joists are spaced 1 foot o.c. How many joists do the specifications require? _____

26. A warehouse is 98 feet wide by 164 feet long. Girders run the long way of the building and are spaced 14 feet o.c. How many linear feet of girder are required? _____



27. A building is 42 feet wide and 80 feet long. Girders running the length of the building are spaced 6 feet o.c. The outside walls rest on a foundation. Supporting each girder are piers spaced 5 feet o.c. How many piers are needed? _____



28. Determine the number of sheets of 4-foot by 8-foot plywood subfloor needed to cover the floor area as shown.