

Carpentry & Building Construction

Chapter 10 Foundation Walls

Section 10.1 Assessment Answers

1. It provides a surface that distributes weight over a wide area of soil.
2. Reinforcing bar, or rebar.
3. When footings are on a lot that slopes.
4. It prevents water from building up against foundation walls.
5. The footings should be 16" wide and 8" deep; 10' = 120", so $P = 120" \times 4 = 480"$; $480 \times 16 \times 8 = 61,440$ cubic inches. $61,440 \div 46,656 = 1.317$ cubic yards. 1.31 cubic yards rounded to the nearest $\frac{1}{4}$ cubic yard is 1.5 cubic yards of concrete.

Section 10.2 Assessment Answers

1. A brace for forms, used when concrete is placed to prevent the concrete from spreading over the job site.
2. It greatly increases the insulating level of the foundation walls.
3. To maintain strength.
4. Soil beneath the house must be covered with a material to block moisture vapor from reaching the floor structure. The crawl space usually must be ventilated. The floor framing above the crawl space should be insulated to reduce heat loss.
5. Answers will vary.

Section 10.3 Assessment Answers

1. The walls do not require formwork, the blocks are fairly inexpensive, and the work on a block foundation can start and stop as needed.
2. Type S mix.
3. A story pole, or course pole, is a board with markings 8" apart. It can be used to gauge the top of the masonry for each course.
4. Parging is the process of spreading mortar or cement plaster over the block. It is part of waterproofing solid concrete walls.
5. $20 \times \frac{3}{4} = 15$; $8 \times \frac{3}{2} = 12$ courses; $15 \times 12 = 180$ blocks.