

Ranch Component Measurements

Exercise 3

| Component | Length | Width | Area | Material | Insulation |
|---------------------------------|--------|-------|-------|-------------|---------------|
| 1 st floor Ceiling | 40 ft | 30 ft | | 2x6x16 O.C. | 6" Batts-Fair |
| Slab Floor | 40 ft | 30 ft | | Concrete | none |
| Walls | 140 ft | 8 ft | Gross | 2x4x16 O.C. | None |
| - Window & Door Area | | | | | |
| Net Wall Area | | | | | |

Windows

| Length | Width | # | Area | Description |
|-------------------|-------|---|------|---|
| 3 ft | 5 ft | 6 | | Single Pane Windows with Storms (R-1.8) |
| 8 ft | 5 ft | 2 | | Single Pane Windows with Storms (R-1.8) |
| 2 ft | 3 ft | 1 | | Single Pane Windows with Storms (R-1.8) |
| Total Window Area | | | | |

Doors

| Length | Width | # | Area | Description |
|--------|-------|---|------|-----------------------------|
| 7 ft | 3 ft | 2 | | Solid wood doors with storm |

Perimeter is the length around an object. For a Home add all the exterior sides together

Gross wall area is the total wall area. Find it by multiplying the Perimeter by the ceiling height

Net wall area is the total area that is actually walls. Find it by subtracting out any components that are different then the wall assemblies, typically this is the windows and doors in most homes.

Sample Ranch Volume

| Length | Width | Height | Total Volume |
|--------|-------|--------|--------------|
| | | | |

$$\text{Volume} = \text{Length} \times \text{Width} \times \text{Height}$$

