

Team Activity

DO NOT WRITE ON THIS PAPER!

MARK ANSWERS ON THE SCANTRON SHEET!

15 pts each

Here's the deal. You are asked to determine a few components of a 500 head, 190 pound swine, environmentally controlled, finishing building.

- Using the reference sheets provided, (P. 510.9), determine the number of square feet of floor space required for one-190 pound pig.
a. 6 sq. ft. b. 8 sq. ft. c. 5-6 sq. ft. d. 12-15 Sq. ft.
- Using the reference sheets provided, (P. 510.9), determine the number of square feet of floor space required for the 500 pigs.
a. 3000 sq. ft. b. 3500 sq. ft. c. 4000 sq. ft. d. 4500 sq. ft.
- Determine the amount of concrete needed for a 6 inch floor for the floor above.
a. 74 cu. yds. b. 148 cu. yds. c. 889 cu. yds. d. 2000 cu. yds.
- Just for comparison, not necessarily the answer for number 2. Which size building would use the least amount of concrete for a 2 foot deep footing around the outside that is 6 inches wide?
a. 10 ft. by 300 ft. b. 30 ft. by 100 ft. c. 20 ft. by 150 ft. d. 15 ft. by 200 ft.
- If a 4 foot deep manure pit with a 6 inch floor and 6 inch walls that is 8 feet wide and 100 feet long (outside measurements) was installed inside your building, how much concrete would be needed for the pit?
a. 432 cu. yds. b. 7584 cu. yds. c. 8 cu. yds. d. 16 cu. yds.
- At \$90 per yard of concrete, what would be the total concrete cost of the building floor (no footing) with a manure pit in the floor?
a. \$8100 b. \$7380 c. \$118,890 d. \$52,200
- If the height of the ceiling is 8 feet along the outside walls and 12 feet in the center what is the volume of air space inside your building?
a. 3000 sq. ft. b. 35000 sq. ft. c. 40000 sq. ft. d. 45000 sq. ft.
- Using the chart provided, (Table 634-4), for 10 single speed fans, what size of fans would be needed to turn the air in the building over to totally fresh air?
a. 18 inches b. 16 inches c. 24 inches d. 10 inches
- Using the chart provided, (Table 633-2), using circulation fans in the building would replace how many ventilation exhaust fans in hot weather?
a. 2 fans b. 5 fans c. 8 fans d. all 10 fans
- If you decided to use your finishing building for growing pigs, (145 pounds), how many could you house inside this building? (P. 510.9)
a. 266 pigs b. 444 pigs c. 500 pigs d. 666 pigs