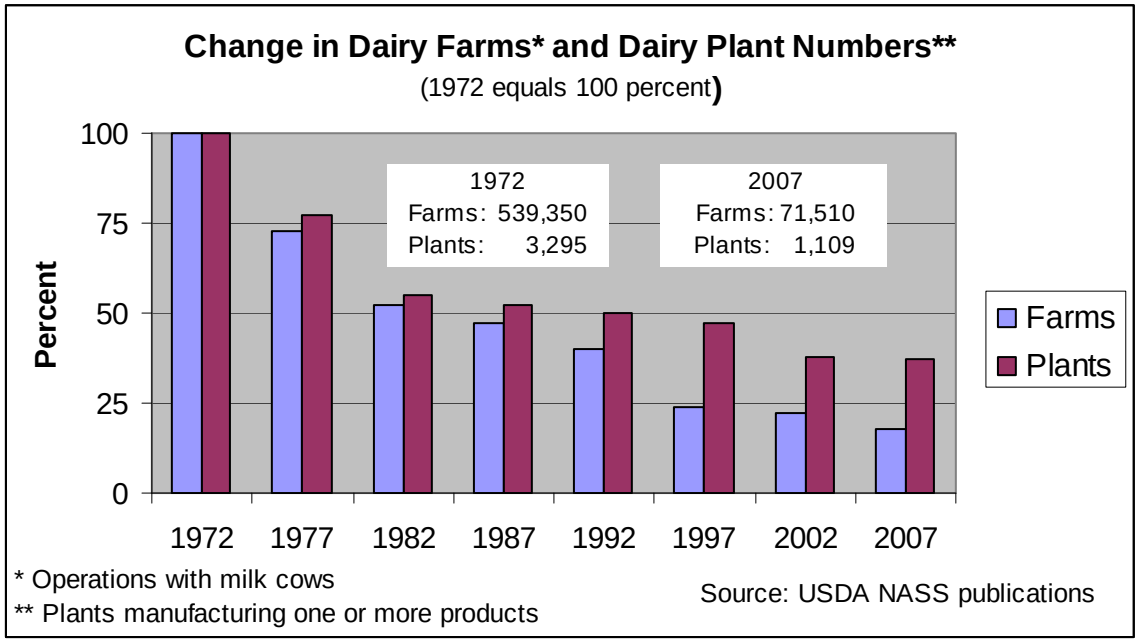
National FFA 2009
Dairy Foods
CDE

Problem Solving



1. The graph above illustrates the decline in dairy farms and dairy plants since 1972 to 2007. What is the percent decrease in the number of dairy farms from 1972 to 2007?
   A. 13
   B. 27
   C. 73
   D. 87

2. Based on the graph above, there were _____ percent fewer dairy plants in 2007 as there were in 1972.
   A. 13
   B. 24
   C. 34
   D. 52

3. In 1972, there were 164 farms per plant compared to 2007 when there were _____ farms per plant.
   A. 64
   B. 84
   C. 99
   D. 104

Dairy Products per capita Consumption in the United States									
Year	Fluid Milk and Cream	Butter	Natural Cheese	Cottage Cheese	Evaporated and Condensed Milk	Ice Cream	Lowfat Ice Cream	Nonfat Dry Milk	All Dairy Products Milk Equivalent Milkfat Basis
---------- Pounds ----------									
1970	264	5.4	11.4	5.2	12.0	17.8	7.7	5.3	564
1975	261	4.7	14.3	4.7	8.9	18.5	7.7	3.3	539
1980	246	4.5	17.5	4.5	7.1	17.5	7.1	3.0	543
1985	241	4.9	22.5	4.1	7.4	18.1	6.9	2.3	594
1990	233	4.4	24.6	3.4	8.0	15.8	7.7	2.9	568
1995	221	4.4	26.9	2.7	6.8	15.5	7.4	3.4	576
2000	210	4.5	29.8	2.6	5.8	16.7	7.3	2.6	591
2007	206	4.7	32.7	2.5	7.6	14.0	7.0	2.2	610
Source: Economic Research Service, USDA									

4. Which category of dairy products shows a continuous increase in per capita consumption from 1970 to 2007?
   A. Natural Cheese
   B. Fluid Milk and Cream
   C. Butter
   D. Lowfat Ice Cream

5. Which two categories of products decrease continuously from 1970to 2007?
   A. Fluid Milk and Cream; Butter
   B. Ice Cream; Nonfat Dry Milk
   C. Evaporated and Condensed Milk; Cottage Cheese
   D. Fluid Milk and Cream; Cottage Cheese

6. From 1970 to 2007, the amount of dairy products consumed per person

   A. decreased by 7.0%
   B. increased by 15%
   C. increased by 8%
   D. decreased by 15%

7. Which category of dairy products had the largest percentage increase in per capita consumption from 2000 to 2007?
   A. Butter
   B. Natural Cheese
   C. Evaporated and Condensed Milk
   D. Fluid Milk and Cream

A fifth herd retirement round by Cooperatives Working Together (CWT) has been completed. The program resulted in the removal of 24,860 cows representing 436 million pounds of milk.

At the end of the on-farm auditing process, CWT removed 203 herds in 37 states. It had received 607 bids from 41 states during the bidding process. As in the case of its previous herd retirement rounds, most of the cows removed were in the western regions of the United States. This round also removed 275 bred heifers. The average accepted bid in this round was $6.10 per hundredweight.

The totals for each region* in the fifth round are shown in the table below:

Region	Pounds of Milk (millions)	Farms Accepted	Percent of Total Milk Reduction	Number of Cows	Average Bid
Northeast	55	29	13%	2,776	$6.06
Southeast	64	35	15%	3,987	$6.25
Midwest	70	76	16%	4,124	$6.01
Southwest	85	36	19%	5,180	$5.98
West	162	27	37%	8,793	$6.35
Totals	436	203	100%	24,860	$6.13

8. What percent of the bids received were accepted?
   A. 29%
   B. 33%
   C. 42%
   D. 55%

9. What percent of the cows came from the West region?
   A. 35%
   B. 37%
   C. 42%
   D. 51%

10. Based on the number of cows removed in the Northeast region representing 55 million pounds of milk, what was the average production per cow in the Northeast region?
   A. 15,619
   B. 16,409
   C. 18,453
   D. 19,813

11. Based on the pounds of milk and the number of cows removed, which region had the lowest production per cow?
    A. Midwest
    B. Northeast
    C. Southeast
    D. Southwest

Top 10 Dairy States in 2008									
	Total Milk Production (billion lbs.)			Total Cows (thousands)			Production Per Cow (pounds)		
Rank Based On 2008		2008	2007		2008	2007		2008	2007
#1	California	41.20	40.68	California	1,844	1,813	Arizona	23,382	23,260
#2	Wisconsin	24.47	24.08	Wisconsin	1,252	1,247	Washington	23,344	23,239
#3	New York	12.43	12.10	New York	626	627	New Mexico	23,269	21,958
#4	Idaho	12.32	11.54	Idaho	549	513	Colorado	22,930	22,932
#5	Pennsylvania	10.58	10.68	Pennsylvania	549	550	Idaho	22,432	22,513
#6	Minnesota	8.78	8.66	Minnesota	464	460	California	22,344	22,440
#7	Texas	8.42	7.38	Texas	418	389	Michigan	22,180	22,761
#8	New Mexico	7.87	7.29	Michigan	350	335	Utah	20,894	20,376
#9	Michigan	7.76	7.63	New Mexico	338	332	Nevada	20,704	20,481
#10	Washington	5.70	5.53	Ohio	280	275	Kansas	20,641	19,882

12. Total U.S. milk production in 2008 was a record 190 billion pounds, an increase of 4.3 billion pounds or 2.3% from 2007. Based on the top ten dairy states listed above, which state had the largest increase in total milk production in 2008 compared to 2007?
    A. Texas
    B. California
    C. Washington
    D. New Mexico

13. The average number of milk cows in the U.S. in 2008 was 9.315 million head, an increase if 126,000 head that was the largest one-year gain since 1953. Total cow numbers during 2008 were the most since 1996. How many of the top ten dairy states listed above actually show a decrease in cow numbers?
    A. 1
    B. 2
    C. 4
    D. 6

14. The total cow numbers in top ten dairy states represents _____ percent of the total U.S. cow numbers.
    A. 32
    B. 51
    C. 67
    D. 72

15. Average production per cow in the U.S. in 2008 was 20,396 pounds. Extremely high producer prices during most of the year was an incentive for producers to hold on to many marginal cows, hence the huge increase in cow numbers. As a result, however, average production per cow increase for the year was also marginal at just 192 pounds. Which of the top ten dairy states had the largest decrease in production per cow?
    A. New Mexico
    B. Michigan
    C. Idaho
    D. Kansas