



The Twelve Days of Christmas... how much would it cost?

Day	Gift(s)	Number of days given	Number of gifts required	Price of one gift item	Cost
1	A partridge in a pear tree				
2	Two turtle doves				
3	Three French hens				
4	Four calling birds				
5	Five gold rings				
6	Six geese a-laying				
7	Seven swans a-swimming				
8	Eight maids a-milking				
9	Nine ladies dancing				
10	Ten lords a-leaping				
11	Eleven pipers piping				
12	Twelve drummers drumming				
Total cost:					

How many gifts were given in total?



TEACHER PAGES

Data from the 2010 PNC Christmas Index

<http://www.pncsites.com/CPI/2010/index.html>

Gift	Unit Cost 2010	Cost per gift 2010	Variance on 2009	Unit Cost 2010 UK	Cost per gift 2010 UK
Partridge in a pear tree	\$161.99	\$161.99	1.30%	£102.05	£102.05
Two turtle doves	\$50.00	\$100.00	78.60%	£31.50	£63.00
Three French hens	\$50.00	\$150.00	233.33	£31.50	£94.50
Four calling birds	\$149.99	\$599.96	0%	£94.49	£377.97
Five gold rings	\$129.99	\$649.95	30%	£81.89	£409.47
Six geese a-laying	\$25.00	\$150.00	0%	£15.75	£94.50
Seven swans a-swimming	\$800.00	\$5,600.00	33.30%	£504.00	£3,528.00
Eight maids a-milking	\$7.25	\$58.00	0%	£4.57	£36.54
Nine ladies dancing	\$699.34	\$6,294.03	15%	£440.58	£3,965.24
Ten lords a-leaping	\$476.67	\$4,766.70	8%	£300.30	£3,003.02
Eleven pipers piping	\$214.20	\$2,356.20	3.10%	£134.95	£1,484.41
Twelve drummers drumming	\$212.71	\$2,552.55	3.10%	£134.01	£1,608.11

Teaching Suggestion: Give the students only the information from the first column. They will then have to convert to pounds using a conversion rate. You can use the Excel file to show solutions for different rates by changing the value in the yellow cell.



Example Solution (using 1USD=0.63GBP)

Day	Gift(s)	Number of days given	Number of gifts required	Price of one gift item	Cost
1	A partridge in a pear tree	12	12	£102.05	£1,224.64
2	Two turtle doves	11	22	£63.00	£693.00
3	Three French hens	10	30	£94.50	£945.00
4	Four calling birds	9	36	£377.97	£3,401.77
5	Five gold rings	8	40	£409.47	£3,275.75
6	Six geese a-laying	7	42	£94.50	£661.50
7	Seven swans a-swimming	6	42	£3,528.00	£21,168.00
8	Eight maids a-milking	5	40	£36.54	£182.70
9	Nine ladies dancing	4	36	£3,965.24	£15,860.96
10	Ten lords a-leaping	3	30	£3,003.02	£9,009.06
11	Eleven pipers piping	2	22	£1,484.41	£2,968.81
12	Twelve drummers drumming	1	12	£1,608.11	£1,608.11
Total cost:					£60,999.30

How many gifts were given in total? **364**



Some Useful Newspaper Articles

Tom de Castella - 29th November, 2010

Christmas Price Index sees rise in cost of gold rings, French hens

They're doubtless top of every traditionalist's Christmas list: ten lords-a-leaping, eight maids-a-milking and a partridge in a pear tree.

But family members may now have to scour the shops for 'buy one get one free' turtle doves, three-for-two offers on French hens and a value pack of drummers.

The price of the gifts in the Twelve Days Of Christmas song has shot up to more than £15,000, a 9.2 per cent rise on last year, according to the Christmas Price Index.

Buying all the 364 items as repeated in the song's verses would set a loved one back more than £60,000.

The percentage rise was the second-highest jump in the survey's 27-year history, said James Dunigan of US financial services firm PNC Wealth Management, which created the whimsical survey.

'This year's jump can be attributed to rising gold commodity prices, represented by the five gold rings, which went up by 30 per cent,' added Mr Dunigan.

'And there's no doubt that our feathered friends in general make up a good portion of the increase.'

The price of feed contributed to a 78.6 per cent increase in the price of two turtle doves and a staggering 233 per cent increase in the cost of three French hens to £96.50.

However, the dancers added the greatest monetary rise, shooting up by more than £520 – mainly because they didn't get a pay rise last year.



Toting up the 12 days / Rise in aggregate cost of partridge, rings, drummers, other gifts keeps pace with inflation this Christmas season

December 02, 2004|By Carrie Kirby, Chronicle Staff Writer

Want to make this Christmas really special? For \$66,344.46, you could buy all the gifts mentioned in the holiday tune "The Twelve Days of Christmas."

That's what all those partridges, geese, gold rings, maids a-milking and pipers piping would cost at today's prices, according to PNC Advisors, a branch of Pittsburgh's PNC Financial Services Group.

It may sound like the kind of thing economists joke about at the company Christmas party, but the wealth management firm has been semi-seriously calculating the tab run up in the traditional Christmas carol for 20 years as its own way to gauge inflation.

"It's a microcosm, kind of a strange microcosm, of the overall goods and services in the economy," said Jeff Kleintop, PNC Advisors' chief investment strategist.

The Christmas Price Index tends to shore up economic truths found by more conventional means. For example, other economists have observed that the abundance of low-cost labor overseas is keeping wages low for unskilled workers in the United States.

For the index, that means that eight maids a-milking remain one of the carol's true bargains at \$41.20, the same as last year. At the same time, the cost of skilled labor, such as 10 lords-a-leaping (\$4,039.08) and 12 drummers drumming (\$2,224.30) increased 3 percent and 3.6 percent, respectively, over last year.

But how do you put a price on human beings, who are given on five of the 12 days of Christmas, according to the song? Sure enough, the index's authors find ways.



"The lords a-leaping we priced out based on a three-hour private performance of the Philadelphia Ballet. ... The maids a-milking, that's one hour of minimum wage for eight maids. Your true love has to supply the cow," Kleintop said.

The \$66,344.46 price tag of all the gifts in the song includes the many repetitions. By the 12th day, the singer has major storage problems, with 364 presents, including a dozen partridges in a dozen pear trees and 36 ladies dancing. The index doesn't estimate the cost of storing and feeding all the gifts, most of which are alive.

The cost of just one round of each gift mentioned comes to a more affordable \$17,296.91, up 2.4 percent from last year's \$16,885.28. That's a 1.6 percent annualized increase since 1984, when the list was first published.